

Quality Assurance of Higher Education in Brazil

Country Background Report¹

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Chapter 1: The national context for higher education

1.1 Demographic and Economic context

Brazil is one of the largest countries in the world, with a territory of 8.5 million km² and a population of 205 million². Most of the population lives in urban areas, concentrated near the Atlantic Coast and in the Southeast region. Ten percent of the population, 22 million, live in the metropolitan area of São Paulo, 6 percent in the metropolitan area of Rio de Janeiro, and another 16.5 percent in the metropolitan areas of Belo Horizonte, Porto Alegre, Salvador, Recife, Curitiba, Goiania, Manaus, Belém and Vitória, with 5 to 2 million residents.

² Data from the Brazilian Institute for Geography and Statistics (IBGE), www.ibge.gov.br

Population by regions, 2010

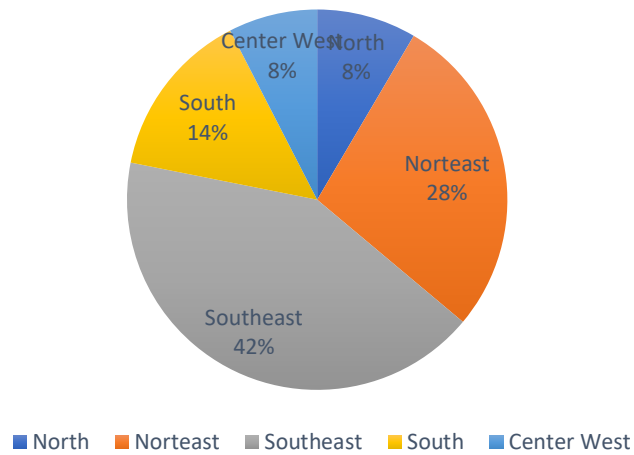


Figure 1.1



Figure 1.2



Figure 1.3

Most of the population are of European, African or native descent. The statistical office asks the respondents about their “color”, a proxy for race or origin. In 2016, 44.6% of the respondents declared to be white, 7.7% black, 46.9 “pardo” (brown), 0.3% indigenous and 0.5 “yellow” (oriental). Until the 19th century, Brazil was the world’s largest recipient of African slaves, about 10 million. Different from the countries in the Andean and Central American regions, Brazil did not have extensive and complex pre-colonial societies, and most of the original native population was either extinct or fully assimilated, with small pockets still remaining. From the late 19th to the early 20th century, millions of immigrants from Italy, Germany, Portugal and other European countries, and also from Japan, came to work in agriculture and later moved to the cities, particularly in the Center South, but international migration was strongly reduced after World War II. Today, Brazil is a recipient of low-income immigrants from neighboring countries, particularly Bolivia and Paraguay. Most of the population speaks Portuguese, with little regional variance.

The country went through two important demographic transitions in the last half a century. First, until the 1950s, most of the population lived in the countryside and small towns, but, in

the 1960s and 1970s, there was a large flow of immigrants moving to the metropolitan areas, fleeing from extreme poverty and attracted by the employment opportunities and public services in the urban centers, getting settled in shanty towns or “favelas”, and overwhelming the cities’ health, education, housing, sanitation transportation and security services. By the 1980s, this internal population displacement was strongly reduced, and the second demographic transition started: the fecundity rate, which used to be large, dropped to 2.4 in 2000 and 1.7 in 2015, well below the reproduction level. Brazil’s population is still young, but the age pyramid is rapidly approaching those of the most mature economies in Europe and Asia.

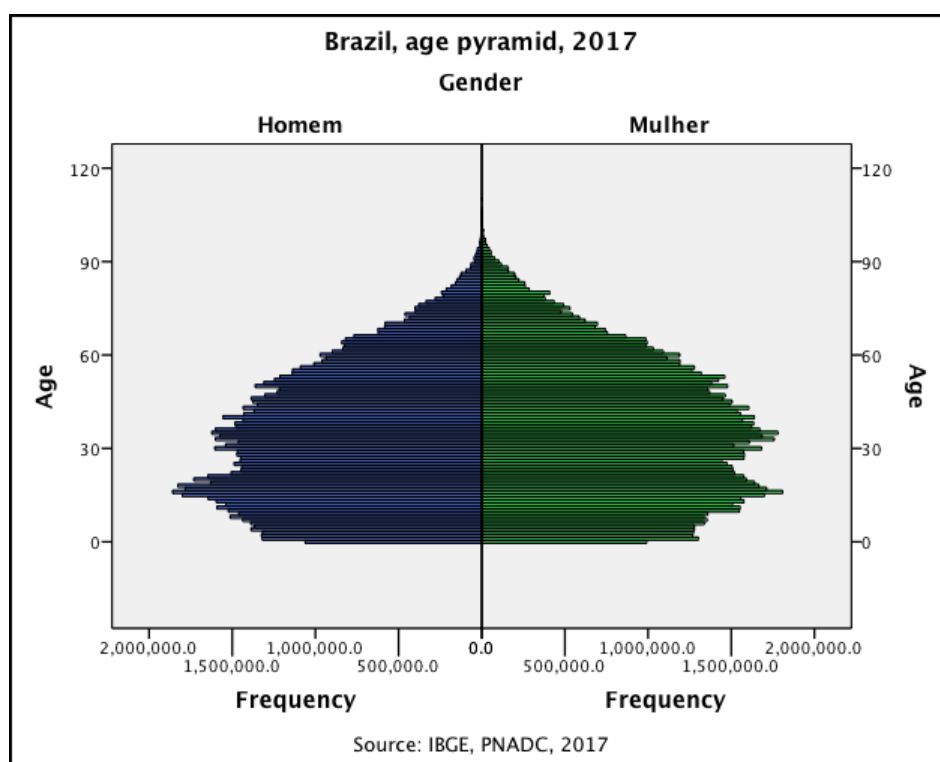


Figure 1.4

Most of the economic activity takes place in the service sector, 73% of GDP, with industry accounting for 22% and agriculture 5%. Most of the work, 86.6 % of the employment, takes place in service and commercial activities.

In the last decade, the economy went through a period of growth followed by a deep recession, with signs of recuperation starting to appear in late 2017. Gross GDP in current

prices went from 13,244 billion US dollars in 2011 to 8,730 billion in 2016, with GDP per capita falling from US\$ 13,244 to US\$ 8,730 in nominal terms³.

The recession is explained by a combination of factors, among which the way the Brazilian government responded to the international economic crisis of 2008 and the reduction of the price of commodities in the international market, by increasing public expenditures, subsidizing credit, reducing interest rates and administering the prices of energy to keep inflation under control. These policies failed to reactivate the economy, leading to uncontrolled fiscal deficit, running inflation and economic slowdown. Unemployment, which was as low as 5.4% in 2013, reached above 13%, and remains around 12%, with 45% of the employment in the informal sector (without legal contracts and social benefits) and a significant number of persons in precarious jobs.

The economic crisis, combined with a growing corruption scandal involving the country's main political parties, public corporations and private construction companies, led to a profound political crisis and the impeachment of President Dilma Rousseff in May 2016. She was replaced by Vice President Michel Temer, with a new presidential election scheduled for October, 2018. Economic indicators for 2017 point to a slow recovery of economic activities and reduced inflation, a slight decrease in unemployment, and project a 2.2% growth of GDP for 2018, still depending on major changes of legislation on social pensions and the unpredictability of the political scenario.

1.2 The impact of the economic crisis on persons with higher education

Persons with higher education were much less affected by economic crisis than the less educated. By the end of 2017, their unemployment rate was just 6%, compared with 12.6% for those with just secondary education, and their mean income was 2.8 times higher. For this reason, demand for higher education remains strong, limited only by the availability of places in public institutions, which are free and depend on high scores in the National Assessment of Secondary Education (ENEM), and by the costs of tuition in the private sector, which comprises about 75% of the enrolment. Enrolment in higher education went from 5 to 8 million between 2006 and 2015, but remained the same in 2016, mostly because of the

³ Data from the Brazilian Central Bank, <https://www.bcb.gov.br/pec/Indeco/Ingl/indecoi.asp>

strong reduction in the subsidized student loans program for the private sector. Another limitation to the number of higher education students is the proportion of persons who never complete secondary education, about 22% for the country as a whole at age 25, but around 40% in the poorer North and North-eastern regions⁴. Because of their limited supply, employment conditions of higher education degree holders in the poorest regions tend to be better than of those in the richest Southern regions.

1.3 Social conditions, poverty.

Income inequality in Brazil is very high, but extreme poverty has been reduced in the last twenty years or so. There is no official poverty line in the country, but, according to the World Bank, “Brazil's economic and social progress between 2003 and 2014 lifted 29 million people out of poverty and inequality dropped significantly (the Gini coefficient fell by 6.6 percentage points in the same period, from 58.1 down to 51.5). The income level of the poorest 40% of the population rose, on average, 7.1% (in real terms) between 2003 and 2014, compared to a 4.4% income growth for the population as a whole. However, the rate of reduction of poverty and inequality appears to have stagnated since 2015”⁵. A detailed study of multidimensional poverty (figure 1.5)⁶ shows that 70% of the population can be considered as poor or extremely poor, a situation which is somewhat compensated by the existence of large programs of cash transfers, including “bolsa familia” (family grants) for low income families, which reach about 25% of the population, and “Benefícios de Prestação Continuada”. (permanent payment benefits) which grants one minimum wage (about US\$300.00) for persons who are disabled or above 65 years of age, poor and did not qualify for the national system of retirement benefits, with about 5 million recipients.

⁴ Data from the Higher Education Census (INEP) of 2016 and the National Household Survey of 2016 (PNADC, IBGE).

⁵ <http://www.worldbank.org/en/country/brazil/overview>

⁶ Jannuzzi, P. d. M. and J. C. G. Fonseca (2017). "Pobreza Monetária e Multidimensional no Brasil: estimativas aprimoradas para análise do papel das políticas sociais de 1992 a 2014." *Revista de Ciências do Trabalho* 7.

Figure 2: Cepal-Sagi Multidimensional Poverty Indicator Proposal, its categories and estimated contingents in 2014, according to methodology by Jannuzzi and Sousa (206b)

Privation of access and income poverty		More than 33pct of privations of access to social rights, goods and/or services	Up to 33pct privations of access to rights, goods and/or services	Without privation of access to rights, goods and/or services
No income poor (with income over the line of poverty)		Vulnerable (8.9 million of people)	Not poor with some limitation (120 million)	Not Poor (59 million)
Income poor (with income under or in the line of poverty)		Chronically poor (3.9 million of people)	Needy (9.2 million of people)	Transitory (180,000 individuals)

Source: IBGE, National Household Sample Survey (PNAD). Based on micro-data: DM/SAGI/MDS Remarks: Exclusively residents – being pensioners - of permanent private homes, domestic workers and/or their children. The per capita household income of households without income or not declaring income was allocated according to hotdeck methodology described in Technical Study SAGI # 6 of 2016.

Figure 1.5

1.4 Fiscal context

Figure 1.6 shows the dramatic increase of public debt, from around 15% in 2014 to 50% of GDP in 2017. This increase is explained, in part, by the continuous expansion of public expenditures, mostly for salaries, retirement benefits, subsidies and social programs (education, health, cash transfers) and the fall in tax revenues due to economic retraction. The taxes collected in Brazil amount to about 33% of GDP, closer to the richest welfare states in Europe, and much higher than in other countries in the region, and there is little room for additional tax increases. The federal government can administer its deficit by borrowing at high interest rates, and by monetary emissions, but state and municipal governments do not have the same instruments, and some of them are already nearing bankruptcy. The state of Rio de Janeiro was not able to fully pay the salaries of its civil servants in 2017, and the states of Rio Grande do Sul and Minas Gerais, among others, are also in critical fiscal condition.

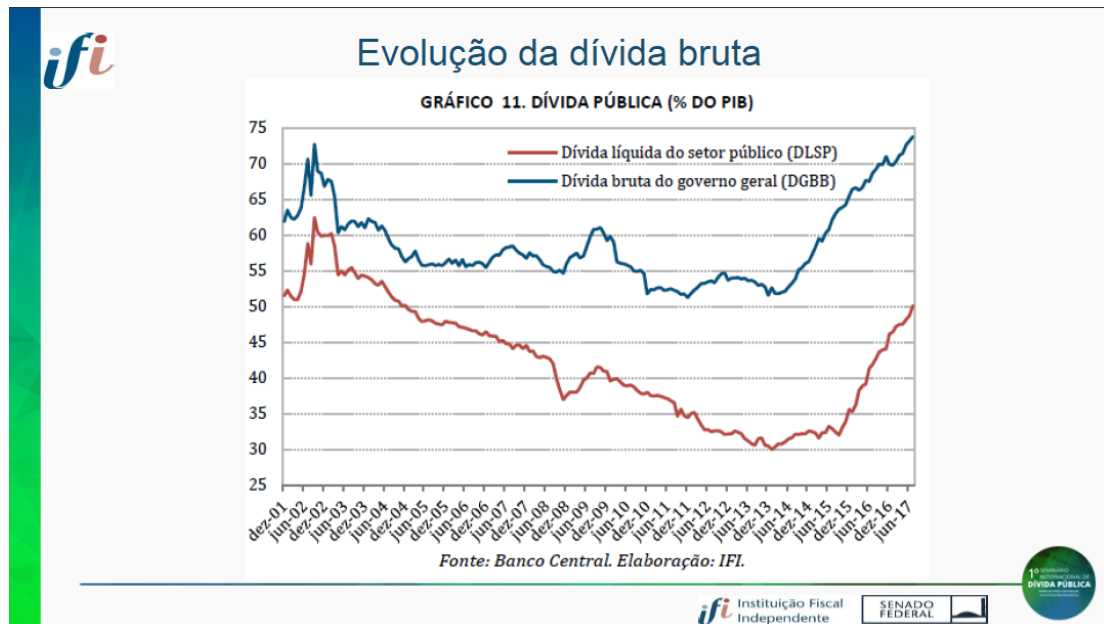


Figure 1.6

1.5 Political context

The October 2014 election was won by Dilma Rousseff, for the 4th presidential mandate of the Worker's Party (Partido dos Trabalhadores – PT), a period inaugurated by the election of Luis Ignacio Lula da Silva in 2002. The winning candidate promised to continue with the expansionist policies of the previous years, but once in power had to acknowledge the looming economic fiscal and economic crisis and tried to introduce austerity measures by cutting investments and reducing the growth of public expenditures. These austerity policies did not succeed, among other reasons, for lack of congressional support and administrative paralysis brought about by the corruption scandals. The new President, Michel Temer, is from the country's largest political party, the "Partido do Movimento Democrático Brasileiro" (PMDB). PT originated in the 1980s with the support of the main trade unions in São Paulo and other parts of the country, benefited from the period of economic expansion up to 2012 while in government, and gathered strong support from the poorer population that benefited from Bolsa Família, particularly in the states in the North and Northeast, and from public service unions which benefited from the expansion of the public sector and growing public expenditures. PMDB is the largest political party in the country. It can be described as a pragmatic alliance of many regional political elites without any explicit ideology and supported the PT party in the elections and in Congress in exchange for ministerial posts and

influence in the country's public banks and companies. The main opposition to this alliance came from the Partido da Social Democracia Brasileira, PSDB, whose best well-known name is former president Fernando Henrique Cardoso, who, as minister of the economy in 1994 coordinated the "Plano Real" that ended a long period of hyper-inflation and was twice elected President in between 1995 and 2002.

In the political spectrum, PT is perceived as a party in the left and statist, PSDB as center-left and more liberal, and PMDB as center. There are 18 different political parties represented in the Brazilian Congress, some of them at the extreme left or right, but the political scene in the Congress and in the country is best understood by the influence of a few organized sectors – agriculturalists, the evangelical churches, civil servants, trade-unions – and professional politicians that negotiate their political stands in the exchange for political appointments and private benefits.

President Michel Temer has presided the Brazilian Chamber of Deputies in the past, and, as leader of the PMDB party, is known for its ability to navigate the complex negotiations and bargains required to pass legislation through Congress. His two main policies have been to nominate reputable specialists to the main economic ministries and public agencies and companies, and to negotiate with Congress the approval of several broad measures to reduce the public deficit. Some of the main achievements are the approval of a constitutional ceiling for the expansion of public expenditures and the reform of the labor law, making it more flexible, with the expectation of that it would open the way to more employment and the reduction of labor informality. The Central Bank has reduced the interest rates from 14 to 7%, inflation is running at around 3%, and the exchange rates has remained stable at around 3.2 reais per dollar. Petrobrás, the country's largest company, that was particularly affected by the corruption scandals, recovered its credibility through profound managerial and policy reforms. On the other hand, the government has failed to reduce public expenditures, most of which is tied up by legislation related to social benefits, salaries of civil servants, and also used discretionary resources to get congressional approval for new legislation. One of the key issues is the reform of the retirement system, which consumes a large proportion of the federal budget and is bound to run out of control as the population gets older. This reform requires a constitutional amendment which, as of this writing, is not clear that will be approved.

On the negative side, several of the President's close allies and ministers have been charged with corruption and are facing prosecution, with some having to renounce to their posts. The President himself was twice charged with corruption by the National General Attorney Office, but the prosecution was halted for lack of approval by Congress. The President's approval ratings in public opinion pools is extremely low, at around 3%. As the country enters the presidential election year of 2018, the main political parties are still unclear about their candidates, and public opinion polls show relatively high preferences both for former president Lula, in spite of being indicted in several criminal charges for corruption, and for a former military congressman with an agenda of law and order and fighting crime,

1.6 Public support for education policies.

Perhaps because of the broad economic and political crisis, education does not appear as a major issue for the political parties and the public opinion as a whole. The most vocal groups are those that benefited from the expansionist policies of the previous years— teachers' unions in public schools, students and teacher associations in public higher education systems, civil servants in the education agencies, owners of private institutions who benefited from the generous expansion of student loans in previous years. The general perception is that the country needs more resources to provide more education for more people. The facts that the Ministry of Education has already the country's largest federal budget; that the country is already expending about 6% of GDP in education; that access to higher education is highly selective, in spite of affirmative actions introduced in recent years; that there are obvious inefficiencies in the way public money is spent at different levels; and that the quality of most education is very low by international standards, although obvious for the specialists, are not evident for the general public. Therefore, policy proposals to increase the efficiency of public expending, charge tuition in public universities for students that can pay, or stimulate more choice in primary and secondary education, are difficult to be endorsed by politicians that are afraid of alienating their voters.

Chapter 2 - Overview of the Brazilian higher education system

With very few exceptions, Brazil does not have undergraduate colleges in the American or British sense, with all initial instruction leading to a professional qualification. In this report, “undergraduate education” refers to the first cycle of higher education, while “graduate” or “postgraduate education” refers to the master’s and doctoral levels.

Brazil’s higher education system had a very late start, even by Latin American standards. While Spain established universities in his American colonies in the 16th century, the Portuguese colonizers only established Brazil’s first professional schools in law, engineering and medicine in early 19th century. The first universities date from the third and fourth decades of the 20th century, and postgraduate education started only after WWII. By mid-1960s, there were about 100,000 students enrolled in undergraduate programs and only about three dozen postgraduate programs accredited by the Ministry of Education. Despite that slow start, it has developed since into a very large and complex system, enrolling over 8 million students at the undergraduate level and about 270 thousand more in postgraduate programs, in 2016.

This chapter provides an overview of the system, with recent data covering all of its relevant aspects. It is organized as follows: Section 2.1 presents basic legislation pertaining to HE and how that affects the structure of the system. It also presents some of the Ministry of Education (MEC) basic structure. Section 2.2 describes how the system is organized according to the administrative category of the HEI, either public or private, and subdivisions of those two main categories. Section 2.3 presents the various academic degrees granted by Brazilian HEIs, both at the undergraduate and the postgraduate levels. Section 2.4 develops how the system is organized in terms of academic structure of HEI, which include universities, university centers and isolated faculties, and institutes. Section 2.5 gives the current figures related to undergraduate and postgraduate education, according to the categories presented in previous sections, including number of HEIs, programs, enrollment and degrees granted. It ends with a few historical data about the system. Section 2.6 includes some recent federal policies regarding higher education.

2.1. Basic legislation and regulation rules

The Brazilian legislation states that education is a duty of families and the responsibility of the State; that the federal government, state and municipal governments should organize their own education systems; and reserves for the federal government the role of coordinating the national policies of education, in partnership with the other levels of government (Lei 9394, de Diretrizes e Bases da Educação 1996)

The Ministry of Education (MEC), part of the federal government, is Brazil's main educational agency. It regulates education at all levels, with the support of the National Council of Education. It maintains a large network of higher education institutions, and also some secondary schools. States and municipalities also have their education authorities and normative agencies, which should supervise their own education networks in accordance with the general norms and orientations of the federal government. The Ministry of Education exerts direct supervision over its own higher education institutions and also on the private higher education sector. The main attribution of the states is the provision of public secondary education, but several states have their own higher education institutions, which are overseen by the state's education authorities. The same applies to municipalities, which should deal mostly with primary and preschool education, but may have some institutions of higher education as well.

The Ministry of Education is organized by secretaries for all levels of education and includes the National Institute of Pedagogical Studies (INEP), which collects all data on basic and undergraduate education and also runs various learning outcome tests, including the one (ENADE) used by the National System of HE Evaluation (SINAES). Another relevant MEC agencies are CAPES, responsible for funding and evaluating postgraduate education, and CONAES, the National Commission on HE Evaluation, which supervises the evaluation system. DAES is the Directorate of HE Evaluation, part of the Secretariat of Higher Education, and SERES is the Secretariat for Regulation and Supervision for HE (see chapter 3 for a more detailed description of MEC).

The only mention to universities in the 1988 Constitution is that the universities are autonomous⁷ (without specifying what the expression means), and that they should follow

⁷ Art. 207. http://www.planalto.gov.br/ccivil_03/constituicao/constituicao.htm

the “principle of inseparability of teaching, research and extension activities”. This clause, with roots in the Humboldtian tradition of research-based higher education, was introduced in higher education reform law of 1968 (Law 5.540, of Nov 28, 1968) and implemented with varying success by the main federal and state universities. It had far-reaching consequences for the evaluation system, as universities the standards to which all higher education institutions should follow. As such, their characteristics, mainly those related to qualifications of faculty, full-time employment, graduate education and research, are then translated into criteria for the quality assessments implemented through SINAES, the national evaluation system, and applied to all types of institutions (which are described below).

The Constitution also establishes that all public education (that is, provided by government authorities) is free of fees or other charges⁸, irrespective of the level of education. As changing the Constitution is a very difficult process in Brazil (it requires two votes in each of the congressional houses by at least 3/5 of all members), and there is strong resistance in the system itself against change, this has been considered as some sort of “immutable constitutional clause” regarding the HE public system⁹.

More specifically, Brazilian education follows the National Law of Education (LDB)¹⁰, passed by Congress in 1996, which has a chapter on higher education (Ch. IV). Universities are then characterized (Art. 52) as comprehensive HEIs, dedicated to education in multiple disciplines, to academic research and to extension, thus following the Constitution. The same article, then, establishes what would be a sort of minimal academic/administrative criteria for a HEI to be considered a university: it must have 1/3 of the teaching staff with either a Master or a Doctorate degree, and 1/3 as full-time faculty employment. Thus, the “academic” criteria are reduced to criteria about faculty employment. Art. 53 then defines what the university’s autonomy is about, with ten items. These include the rights to establish new programs, develop their curricula, to determine the “*numerus clausus*” for admission, to grant degrees,

⁸ Art. 206.

⁹ Despite having occurred, in recent times, calls from economists and the media for introducing tuition and other fees at public universities, there has been no legislative action on that.

¹⁰ The law is known in Brazil as the “*Lei de Diretrizes e Bases da Educação*”, or, shortly, as the LDB. Lei N. 9.394, 20/12/1996. http://www.planalto.gov.br/ccivil_03/Leis/L9394.htm

to establish research programs and projects, to approve their budgets, to manage other funds, and so on.

There are a few exceptions regarding the autonomy to create new programs: in the case of health-related careers, like medical education, there is a federal agency, the National Council of Health, which must approve of new programs, even at universities. One consequence is that the total number of students admitted to medical training programs is rather small, compared to other areas. This also has some bearing on the recognition of degrees obtained from foreign HEIs. In all fields, Brazilian universities are entitled to provide such recognition. As the Brazilian curricula tend to be very detailed, in all areas, those looking for foreign degree recognition find it hard to get it approved. This has been an issue in the health-related careers, again, especially regarding medical education, as many Brazilians go abroad, especially to other Latin American countries, to get their degrees, expecting to have them certified when moving back to Brazil.

Anyhow, at least on paper, Brazilian universities seem to be fully autonomous, in a very broad sense. While this may be truer for private universities, the public ones are government institutions, and are subject to very strict government-functioning rules for hiring and establishing salaries of academic and administrative staff, for deciding on purchases and contracts. This is true despite the fact that the law has a specific article saying that the public universities would “enjoy a special legal status”, including both academic careers and other aspects. They also have very little saying about their own budgets, especially in the federal system, as most of the funds go directly to salaries, and all teaching staff is considered regular public employees, following a strict system tied to a fixed, nationally unified academic ladder. The state systems may vary in level of autonomy, with the one in the state of São Paulo being the more autonomous, especially regarding budget establishment and allocation. The transfers from the state treasury are determined by a fixed percentage of state sales tax revenues for each of the three universities, and they may allocate the funds freely. While this provides for a much higher level of planning by those HEIs, still, government hiring practices, as well as rules for purchases, bidding and contracts, must follow national legislation. Again, salary levels are tied to a fixed academic ladder system.

Art. 56 of the LDB law says that “public HEIs should follow principles of democratic management, which must include deliberative bodies with representatives of all segments of

the academic, local and regional communities”. A paragraph establishes that in all such bodies, at least 70% of the members must be faculty members. In Brazil, there is no provision differentiating career and other teaching staff. So, even part-time teaching staff may have a saying and vote for faculty representation.

We discuss here, briefly, how rectors (presidents) of the public universities are chosen. In the federal system, following a presidential decree of 1996¹¹, the highest academic council in the institution, or one that includes it, established specifically for that end, must vote to form a list of three names to be submitted to the Ministry of Education, which then appoints one of them as rector, with a 4-year mandate. A paragraph to the main article says that the whole university community may be part of a vote, in which case the 70% weight for faculty participation must also be followed, as for any other representation body. The candidates must be either full professors or the last one level below that (Associate 4 level). Despite the fact that the legislation requires “70% faculty” participation for all representation, and the decree has it explicitly said, in paragraphs 3 and 4 of Art. 1, that any form of voting, broader or restrict, must respect the 70% weight, some federal universities have developed internal voting processes that may even go to the extreme of one person-one vote, including all administrative staff and students. This electoral process takes place with strong participation of unions and students associations, often affiliated with national political parties and movements. The academic council then just follows the results of that vote. Despite that being a violation of the decree ruling, it has been tolerated by the Ministry of Education. In many cases, though, there are weighted systems, like 1/3-1/3-1/3 (faculty/students/staff) or other, some respecting the 70% minimum weight for faculty vote.

In the last decade, the practice has been that the Minister of Education always appoints the first name in the list, and there is a widespread understanding that to do otherwise would be a violation of university autonomy, as expressed through the voting. Once appointed, the university rector nominates the vice-rectors for postgraduate and undergraduate education, research, extension and others. Thus, there is no separate administrative management nor any way for an outsider to become the rector of a federal university. Once elected, the rector

¹¹ Decreto Presidencial n. 1916, 23/05/1996, http://www.planalto.gov.br/ccivil_03/decreto/d1916.htm

is supposed to be politically accountable to its internal supporters, rather than to the Ministry of Education or to external stakeholders.

The national law also establishes the kinds of degree granting programs that can be offered by the higher education institutions, regardless of their status as universities, university centers, or isolated schools and institutes (Art. 44).

Besides the national laws, Brazilian education systems must follow the deliberations of the National Council of Education (CNE)¹², the highest advisory body of the Ministry of Education. The CNE is composed by 24 members nominated by the President, under the advice of the Minister of Education for a four-year mandate and selected in part from lists provided by education stakeholders in the public and private sectors. All rules pertaining to education in Brazil are either established or must be approved by CNE, before being enacted by the Ministry of Education. These include curricula at all levels, interpretation of educational laws, and decisions on any issues that the Ministry finds appropriate.

One mandate included in the law that established CNE is that it should “help to develop and follow the implementation of the National Plan of Education (PNE)”. The Plan, which was already prescribed by the 1988 Constitution (Art. 214), must be passed by Congress as a law and should have a 10-year duration. The first one was passed in 2001¹³, the second one, which should have been passed in 2010, became law only in 2014¹⁴, so that it will be in place until 2024.

The Plan establishes targets for all areas of education. For higher education, it states (Goal 12) that Brazil should reach 33% of net enrollment ratio (NER) by 2024, using the 18-24 age cohort as reference (thus, of those in that age cohort, at least 33% should be enrolled in higher education). As a whole, the enrolled population should represent 50% of the age cohort population (gross enrollment ratio GER) by 2024 (it is 36% currently). Specialists have

¹² Conselho Nacional de Educação. Lei 9.131, de 25/11/95.

http://www.planalto.gov.br/ccivil_03/leis/l9131.htm

¹³ Plano Nacional de Educação 2001, Lei N. 10.172, de 09/01/2001.

<http://portal.mec.gov.br/arquivos/pdf/L10172.pdf>

¹⁴ Plano Nacional de Educação 2014, Lei N. 13.005, de 25/06/2014.

http://www.planalto.gov.br/CCIVIL_03/_Ato2011-2014/2014/Lei/L13005.htm

pointed out that those goals are unlikely to be reached, as Brazil would need to enroll at least another 3 million people 18-24 years of age, beyond the current 4 million (which amounts to a NER of 18%). In fact, as OECD has pointed out recently in their methodology documents, using enrollment ratios for HE may not be an appropriate access indicator, as cohort ages for HE varies across countries, as well as the duration of programs. The 18-24 cohort used by Brazil actually decreases the ratios, as it uses as denominator the population of ages within a 7-year span, even though programs last typically 4-5 years. For example, if, instead of using 18-24yos as the reference cohort, one used 18-22 (5-year span), GER would already be 47%.

A further limitation to expanding access to HE is the fact that secondary education has not, yet, being universalized. Demographic data shows that about 57% of the adult population has a secondary education degree. The figure is higher for those in the 20-24 age cohort, at about 70%, but still below what would be needed to expand the enrollment ratios as proposed by the Plan.

2.2. HEI's administrative categories

Brazilian HEIs may be public or private, regarding their administrative category. Public HEIs may be part of the federal, state or municipal governments. All public institutions are state funded and must follow government hiring practices, with uniform salaries and a strict academic ladder system. Also, they must follow general public bidding rules for all purchases. There is a large sector of federal HEIs, a smaller one of state institutions, and a very small one run by municipalities. As mentioned, funding comes basically from government budget appropriations, with few opportunities to develop other funding sources, like establishing endowments, collecting donations or other sorts of private sources. There are some differences between the federal and some state systems, in terms of how much autonomy the institutions enjoy. As that depends also on the academic category of the HEI, this aspect will be treated in Section 2.3.

Private institutions may be non-profit or for-profit. Non-profit HEIs have been part of the Brazilian system from its beginnings; the for-profit sector has a more recent history, being legally recognized by legislation in 1988 and having been expanding quite fast in the last decade. The rationale for this legislation was that, in practice, many private institutions were for profit in disguise, and that it would be better to recognize this fact and distinguish them

from truly charity institutions. Part of the for-profit sector comes from the transition of many non-profits to the for-profit status following the 1988 legislation, part through expansion, acquisition and mergers. There are a few very large conglomerates which run dozens of campuses and different institutional brands, spread over the whole country. One of them enrolls about one million undergraduate students (many in distance learning programs).

The non-profit, charity institutions started mostly as Catholic universities and colleges, which are still an important part of the system, and many small communitarian HEIs, either tied to local administrations or to non-Catholic denominations, as in the Southern states of Santa Catarina and Rio Grande do Sul (which have, both, large German immigration populations).

2.3. Academic programs and degrees

Graduate degrees are of three basic types:

- Bachelor's degree (bacharelado): mostly 4-5 year degrees, encompassing all academic and professional fields. The exception is medical training, which takes, typically, 6 years of full-time work to complete. Brazil does not have the American or English type of undergraduate colleges, and most first degrees lead to a legally recognized and regulated profession, like medical and law degrees, as well as in engineering, economics, administration and other professions.¹⁵
- Teacher's license degree 4-year programs, in all areas, from child and early schooling education and to all sciences and languages teaching licenses. Teachers for pre and early childhood education get their licenses from schools of education or pedagogy; teachers for upper primary and secondary education study their subject matters in the respective faculties and institutes of language, social sciences, mathematics, chemistry, biology and others, followed by courses on pedagogy provided by the school or education departments (licenciaturas).
- Vocational degrees (tecnológicos): 3-year programs, vocational and profession-oriented. Despite its title, it may, and is, offered in all areas, including services, like IT, restaurant/catering/hotel services, health related technical activities, and other.

¹⁵ In recent years some universities have introduced an interdisciplinary bachelor's degree (Bacharelado Interdisciplinar), which brings the institutions closer to the college model. The best example is probably that of the federal "Universidade do ABC, <http://www.ufabc.edu.br/a-ufabc/projeto-pedagogico>

Academic postgraduate degrees are also of three types:

- Master's: 2-year programs, all academic fields.
- Professional Master's: 2-year programs, mostly in business, technology and other applied fields.
- Doctorate: 4-year programs (expected), all academic fields.

In Brazil, those intending to eventually pursue a doctorate degree will, typically, start at the master's level, complete it and then apply to a Doctorate granting program. So, a full postgraduate education cycle will take at least 6 years to be completed.

A Professional Master's degree is granted under a relatively new type of postgraduate program offered by HEIs in Brazil, but they have been expanding faster than the other two traditional programs. Moreover, as we will see below, private HEIs have been increasingly more active in offering such programs than masters and doctorate ones.

These are considered "stricto sensu" academic degrees, which entitle the holder, for example, to be included in the qualified academic ladder of HEIs. There are other types of certification programs for holders of first degrees, called "lato sensu" postgraduate programs, but which are typically shorter in terms of total credit hours required than the academic degree programs, or are professionally-oriented, like MBAs and medical residence programs. For these, there are no data collected by federal agencies. For all others, there are census data, collected by the Ministry of Education, which will be presented in Section 2.5.

2.4. HEI's academic categories

Academically, HEIs may be of four basic types, in Brazil:

- Universities: comprehensive institutions, providing undergraduate and postgraduate degrees in different fields of knowledge, and expected to develop research.
- University centers: comprehensive teaching institutions, which are similar to universities in terms of their autonomy but are not required to develop research.
- Federal Institutes for Education, Science and Technology. Their originated from a network of federal vocational institutions, working mostly at the secondary level, which were elevated to university status by legislation approved in 2007-8.

- Isolated schools, faculties or institutes: these are smaller institutions, usually dedicated to an area or field. For example, some engineering institutes, business schools, schools that offer only law or medical education.

All HEI, regardless of their academic status, can provide all kinds of degrees with the same nationwide legal validity, provided they have the necessary autonomy or authorization. Universities and university centers enjoy academic autonomy, meaning that they are able to start an undergraduate program and later ask for it to be recognized as a degree-granting program by the federal agencies. Other types of institutions need an authorization to start undergraduate programs and expand enrolments. Postgraduate programs require authorization by the Federal agency CAPES, even at universities. As these issues are related to assessment and regulation, they will be treated fully in later parts of this document.

2.5. The system in numbers

The tables below summarize basic data regarding the current system, all for 2016, except where noted.

Admissions, enrollment and degrees granted by administrative category of HEIs, 2016					
	Course Programs	Admissions	Enrollment	Degrees	Degrees/ Admissions*
Public	10,542	529,492	1,990,078	246,875	0.45
Federal	6,234	342,986	1,249,324	146,367	0.44
State	3,574	151,791	623,446	81,279	0.53
Municipal	734	34,715	117,308	19,229	0.31
Private	23,824	2,456,152	6,058,623	922,574	0.42
Total	34,366	2,985,644	8,048,701	1,169,449	0.43
*This uses the number of admitted students in 2012 (5-year delay), to correct for the increase in admissions over the past few years, so it is related to the success rate of those going through the system.					
Source: Census of Higher education 2016, INEP/MEC					

Table 2.1

Enrolments and teaching staff							
	Universities	University centers	isolated schools	Federal Institutes	Total	People in teaching positions, headcount	% with doctoral degrees
Public, federal	1,083,179	11,632	1,682	152,960	1,249,453	116,223	62.8
Public, State	547,445	1,538	74,727	0	623,710	54,010	54.3
Public, Municipal	8,618	6,659	31,768	0	47,045	3,114	19.4
Private for profit	1,208,842	801,549	1,376,938	0	3,387,329	94,518	18.0
Private not for profit	1,476,664	605,608	662,445	0	2,744,717	129,746	25.5
Total	4,324,748	1,426,986	2,147,560	152,960	8,052,254	397,611	38.5

Source: INEP, Higher Education Census, 2016

Table 2.2

Higher education enrollments, fields of knowledge, degrees offered and regime						
	Federal	State	Municipal	Private for profit	Private not for profit	total
Fields						
Education	328,546	229,731	12,318	596,376	357,358	1,524,329
Humanities	46,398	19,628	319	44,485	64,726	175,556
Social sciences, business and law	226,985	132,754	20,774	1,460,862	1,160,131	3,001,506
Sciences, mathematics and computation	136,617	52,221	1,581	137,164	127,837	455,420
Engineering, production and construction	238,505	85,017	4,376	454,556	462,151	1,244,605
Agriculture and animal husbandry	84,142	28,300	494	48,235	66,455	227,626
Health and wellbeing	139,842	57,711	6,854	553,838	465,283	1,223,528
Services	24,372	10,399	329	91,646	40,696	167,442
Degrees	823295	305990	33236	2249357	2137858	5549736
Bachelors	328032	229781	12315	593227	357139	1520494
Licencing (teaching)	73951	79726	1467	543730	247355	946229
Technological (vocational)	1225278	615497	47018	3386314	2742352	8016459
% of students in distance education	5.9%	7.3%	0.7%	31.0%	11.8%	18.6%
% in evening courses (excluding distance education students)	42.0%	61.4%	91.1%	94.7%	88.6%	80.1%

INEP, Census for Higher Education, 2016

Table 2.3

Admissions, enrollment and degrees granted by administrative category of HEIs, 2016					
	Course Programs	Admissions	Enrollment	Degrees	Degrees/ Admissions*
Public	10,542	529,492	1,990,078	246,875	0.45
Federal	6,234	342,986	1,249,324	146,367	0.44
State	3,574	151,791	623,446	81,279	0.53
Municipal	734	34,715	117,308	19,229	0.31
Private	23,824	2,456,152	6,058,623	922,574	0.42
Total	34,366	2,985,644	8,048,701	1,169,449	0.43
*This uses the number of admitted students in 2012 (5-year delay), to correct for the increase in admissions over the past few years, so it is related to the success rate of those going through the system.					
Source: Census of Higher education 2016, INEP/MEC					

Table 2.4

The number of private institutions is very large, over two thousand, mostly in smaller colleges and institutes, which may or may not belong to larger controlling institutions (“mantenedoras”). Worth of note as well is that only 22% of the teaching staff in the private system has a doctorate degree, while, for the public system, that group is 60% of the total. Those two characteristics show how different the two systems are, in terms of teaching/faculty ladder structure.

Another relevant difference between public and private HEIs, not included in the table, is the percentage of people in teaching positions that works fulltime. While, for the former, it is 85% on average for the three public subsystems, reaching 93% in the federal subsystem, in the private sector it is only 26%. Of the almost 160,000 instructors employed in less than full-time status, almost half, or 74 thousand, are paid hourly.

The larger number of HEIs in the private system is reflected in the number of students admitted, enrolled and degrees granted in that subsystem, much larger than in the public HEIs. The share of about 75% of enrolment in private HEIs has been holding steady for several, having grown from about 60%, 20 years ago.

Most students in the private sector are in the areas of “social sciences, business and law”, and in evening courses. Until recently, federal universities did not offer evening courses, but this has changed with an expansion program for the sector initiated in 2007 (the *REUNI*). Another important trend is the expansion of distance education, a recent phenomenon that already includes one third of the students in the for-profit sector.

The ratio between the number of degrees granted (in 2016) and that of admitted students (in 2012), at 0.43, is a good indicator of the success rate of students going through the system (other drop-out estimates show similar figures). The state systems seem to be the more efficient in terms of granting more degrees in relation to the number of admitted students, with a 0.53 figure, while the municipal subsystem shows the lowest figure (0.31)¹⁶. Federal and private HEIs show similar degrees/admissions ratios, in sharp contrast to the situation only a few years ago¹⁷.

The age of students is spread over a relatively large span, of about 15 years, from 18 to 32 years of age. About half of them are 24 or younger, the other half above that. It indicates that, despite the net enrolment ratio being relatively low (at about 18%), the gross enrolment ratio is already at about 36%, relatively large. This would be the actual capacity of the system to absorb potential students.¹⁸

Postgraduate education, by administrative category of HEIs and degree type, 2016						
Administrative category	Master's		Professional Master's		Doctorate	
	Enrolment	Degrees granted	Enrolment	Degrees granted	Enrolment	Degrees granted
Public	106,967	40,789	23,856	7,176	95,155	18,080
Federal	74,772	28,063	17,095	5,235	63,924	11,353
State	31,612	12,433	6,248	1,839	31,102	6,703
Municipal	583	293	513	102	129	24
Private	19,469	8,213	8,886	3,436	12,485	2,523
Total	126,436	49,002	32,742	10,612	107,640	20,603

Source: GEOCAPES, CAPES/MEC, 2016.

Table 2.5

¹⁶ It must be observed that the data for municipal HEIs show some strong swings recently, possibly due to change in administrative status, as some of them have become part of the private system in recent years.

¹⁷ For example, the ratio between the number of degrees granted in 2010 (99.9 thousand) over that of students admitted in 2006 (177 thousand), in the federal system, was 0.56, showing that, since then, there has been a loss in efficiency in that subsystem. Comparing to figures above one sees that the number of degrees increased by almost 50% from 2010 to 2016, but the number of students admitted almost doubled, from 177 thousand, in 2006, to 334 thousand in 2012 (corresponding years using a 5-year delay).

¹⁸ The system's nominal capacity is much larger, as less than half of the places opened by the private system are actually occupied by new admitted students, every year.

The share between public and private sector is reversed, in postgraduate education, as compared to undergraduate figures. For example, for doctoral programs, both enrollment and degrees granted show an 88% share for the public system. For master's, it is 85% for enrollment and 83% for degrees granted (which are also the shares for total enrollment and total postgraduate degrees granted). For professional master's programs, one gets 73% for enrollment and 68% for degrees granted, still in favor of the public system, which shows that this type of program/degree, which did not exist before 1998, is getting more attention from private HEIs.

We include now some graphs that show how the system developed recently.

Enrollment in undergraduate programs, administrative category share, 1994-2016. Source: Census of Higher Education, INEP/MEC.

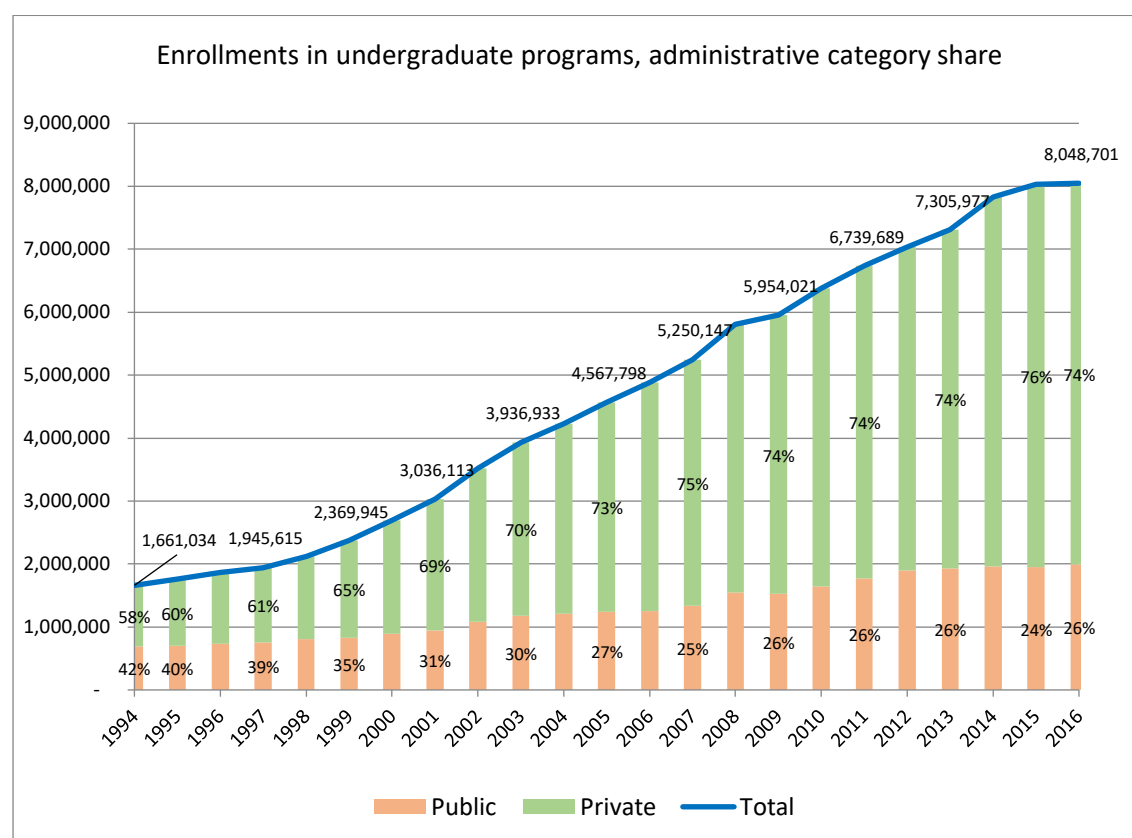


Figure 2.1

Degrees granted by postgraduate program level, 1998-2016. Source: GEOCAPES/CAPES, MEC.

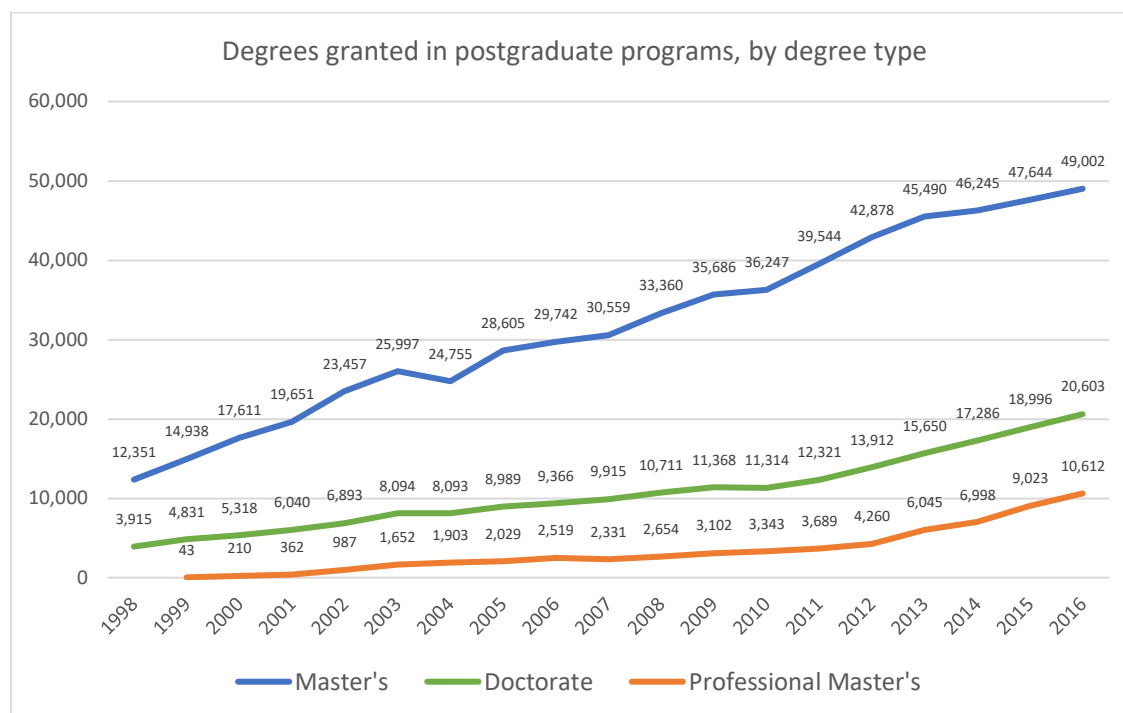


Figure 2.2

2.6. Recent HE policies

Most of the recent policies regarding HE involved issues related to access to undergraduate programs. The first was a shift in federal universities' admissions procedures, mainly based on a change in the use of the National Test of Secondary Education (Exame Nacional do Ensino Médio - ENEM) in 2009. From its inception in 1997, the test was originally used by the Ministry of Education as an exit-exam, measuring learning outcomes as students departed high school. Until 2008, a number of public universities actually used it as part of the admission process, but more selective universities rejected such use of the exam because it was not considered long enough or of sufficient content. However, in early 2009, the Ministry of Education announced that the test would now be administered over two days, would cover the four main areas taught in high schools (Language, Mathematics, Natural Sciences, Art/Humanities/Social Sciences), and would also include a written essay. The Ministry also announced that the ENEM would become the only admission criterion on the new unified admission system for the federal HEIs. In the new centralized system, which was called Unified Selection System (Sistema Unificado de Seleção - SISU), a student could use his/her ENEM

scores to apply to a number participating HEIs through a single application, putting them in order of preference, and his/her scores would determine where he/she would be admitted. Since then, SISU has incorporated most federal and other HEIs, and most institutions now use the ENEM as at least one of the primary criteria for admissions.

In 2012, Congress passed a quota law for students applying to federal HEIs. 50% of all vacancies must be reserved for those students, with sub-quotas for blacks and persons of indigenous origin, in proportion to their share in the general population of the state where the federal university operates. Similar laws exist in some states; in others (like in São Paulo), state universities have developed their own versions of that law. ENEM is the required entrance exam test used for all quota places in the federal system.

Another relevant program in the federal system, established in 2006, was an incentives program for federal HEIs to expand undergraduate programs, called *Programa de Restruturação e Expansão das Universidades Federais* - REUNI (Programme for Restructuring and Expansion of Federal Universities), with the objective of doubling enrolment in the system by 2014. From 2003 to 2011, 14 new universities and over 100 branch campuses were created and the number of cities covered by at least one branch campus grew from 114 to 237. REUNI provided new funds for that process, which has caused growth in enrollment, but it also required federal universities to start evening programs, which are well known to be better suited to poorer students who often work during the daytime.

The two main policies for the private sector have been the scholarship/fee waiver program, known as *Programa Universidade para Todos*, PROUNI ("University for All" Program), and the student loans program, FIES (*Financiamento Estudantil no Ensino Superior*).

With PROUNI, private institutions get tax exemption in exchange of a number of free or reduced tuition fellowships. Started in 2005, participant institutions must also use ENEM as admission criteria. PROUNI scholarships are restricted to students with family income up to three times the minimum-wage (about US\$900 monthly) and who had attended public high schools during their secondary education or in private schools under a full scholarship program. There are minimum ENEM scores for students to be entitled to get such scholarships, and institutions must reach certain scores on their evaluation by SINAES to be eligible to get such grants (more on this in the section about SINAES and its uses).

FIES is a government supported student loan system for tuition in the private sector, started in 1999. This system had some of its provisions changed in 2011, like extending the time limits for reimbursement and the reduction of the interest rates, and again, just this year (2017). The numbers of new loan contracts skyrocketed between 2010 and 2014, after the first set of changes, from 50 thousand per year to over 700 thousand in 2014. Since then, government has reduced the new loan offering to about 250 thousand a year, and new, stricter, rules for entitlement have been put in place.

CHAPTER 3: QUALITY ASSURANCE: STRATEGY, GOVERNANCE AND RESOURCES

The purpose of this chapter is to provide an overview of the legal and policy framework for the accreditation and quality assurance system in Brazil, the main actors involved in the system, their inter-relationship and the way the system is resourced. Section 3.1 describes the QA system for higher education, its tools and main legislation. Section 3.2, describes the key actors, resources and governance arrangements of the Brazilian QA system for undergraduate education. Section 3.3 presents a summary of the assessment procedures for graduate education implemented by CAPES. Section 3.4 presents a summary of the main stakeholders of higher education in Brazil.

3.1 The main legal instruments

The systematic assessment of higher education in Brazil started in 1996 with the National Exam of Course Programs, implemented by the Secretary of Higher Education (SESU) of the Ministry of Education. Before that, higher education institutions were either established by legislation, in the public sector, or through authorization from the National Council of Education, which has existed in different forms and names since the 1920s, with no established system of assessment or accreditation. In 2000 the assessment came under the responsibility of the National Institute of Educational Studies and Research (INEP), which, in the 1990s, was reorganized as an agency for education statistics and assessments, starting with the Assessment System for Basic Education (SAEB) in 1990, patterned on the National Assessment of Education Progress in the U.S.

The National Exam of Courses consisted on multi-choice tests applied to students completing their first degrees. The tests were prepared by committees of higher education professors, mostly from public universities, invited by the Ministry of Education. The mean results of the students in the class in each institution were calculated, placed in a normalized five points scale for each career, and used as a proxy of the relative quality of each program. Participation in the test was mandatory for the students, as a condition for getting their degrees, but the individual outcomes remained confidential and were not included nor affected their degree. The tests were not comparable from one year to another within a field, nor between different

careers, and there were no established minimum thresholds or standards. The test was applied to each career every three years in a rotating base. With some modifications, this is still the way the current National Exam of Student Performance (Exame Nacional de Desempenho dos Estudantes – ENADE) takes place. Besides the exam, in 2000 the Ministry of Education also created a separate assessment of the quality of the infrastructure and academic quality of the institutions, called “Assessment of the Quality of Teaching”, aimed mostly at the private institutions, and also implemented by INEP.

The current legislation for higher education in general, and for education assessment in particular, is based on the 1988 Constitution, promulgated after the 1964-1984 military regime, which is a very detailed document with a strong emphasis on social rights. Title VIII, Chapter III of the Constitution deals with "Education, Culture and Sports". Section I presents the fundamental principles and norms related to education in Brazil, establishing that education is “a duty for all and the responsibility of the State”. Art. 206, subsection VII, requires, among other provisions, that education should meet quality standards, and that education in official (public) institutions should be provided for free. Art. 209 establishes that "education is open to the private initiative", provided it complies with “the general norms of national education” and submits to the processes of "authorization and quality evaluation by the public authority”.

Following these lines, the Law No. 9.131, dated November 24, 1995, created the new National Education Council (CNE), "to formulate and evaluate the national education policy, ensure the quality of education and compliance with laws that governs it". The Council is composed by two chambers, for basic (up to secondary school) and for higher education, and their main role is to work in collaboration with the Ministry of Education (MEC) as an advisory body. Their 24 members are appointed by the government through consultation with different stakeholders and have a fixed four-year mandate. It replaced a preexisting Federal Council of Education created in 1961, which had the power to establish the broad policies to be followed by the Ministry. This legislation also established that higher education institutions and course programs had to be evaluated periodically. Although the CNE appeared to have an important role in the accreditation processes, it did not have an administrative structure to implement it, and in practice all the procedure design and command of actions would remain with the MEC.

Another important landmark for the assessment of the quality of Brazilian education was Law No. 9.394/96 (The Law of Guidelines and Bases of Education - LDB), which replaced a similar legislation of 1961. One of its provisions is the notion of an “education system” divided in three levels - federal, state and municipal - with specific administrative and supervisory responsibilities for each level. Thus, the federal system includes and has direct jurisdiction over (a) educational institutions maintained by the Union (the Federal Government); b) all private higher education institutions in the country; and c) the federal education agencies. Besides, the Union is “responsible for coordinating national education policy, articulating the different levels and systems and exercising a normative, redistributive and supplementary function in relation to the other educational entities”.

The state systems, one for each of the country’s 26 states and the Federal District of Brasilia, has jurisdiction over all the higher education institutions created by the states and the municipalities in the state, and all public and private primary and secondary schools; and the municipalities (5.570 at the last count) have jurisdiction over the schools maintained by the municipalities and public and private preschools.

3.2. Current legislation and main agencies

The processes of education assessment, regulation and accreditation have been subject to constant changes, done through presidential decrees and regulations issued by the Ministry of Education. The more recent is the Presidential Decree 9.235, of December 15, 2017, which establishes the rules for the exercise of regulatory functions, supervision and evaluation of higher education institutions and undergraduate and postgraduate courses in the federal education system. It is a long document, with 101 articles, defining the roles of the Ministry of Education, the Nacional Council of Education and CONAES (to be described below). This Decree was followed by two detailed ordinances (*portarias*) issued by the Ministry of Education, one establishing the working flow for the processes of regulation of higher education, and the another detailing the attributions and responsibilities of INEP¹⁹.

According to this decree, the ministerial functions of regulation and supervision of the federal system of higher education, which includes the federal institutions and the private sector, are

¹⁹ Portaria Normativa n. 40, de 12 de dezembro de 2017, and Portaria Normativa n. 19, de 13 de dezembro de 2017.

implemented through the Secretary of Regulation and Supervision of Higher Education (SERES), an office under the Ministry of Education. The requests for accreditation, reaccreditation and cancelling of accreditation of higher institutions are sanctioned by the Minister of Education on advice from the National Council of Education, which processes the documentation provided by SERES. This process affects only the private sector, since public institutions are created by law and do not depend on accreditation to function.

The National Council of Education prepares their recommendations for accreditation, reaccreditation, cancelling of accreditation and authorization for new course offerings, and oversees the instruments of assessment prepared and implemented by INEP.

INEP has the direct responsibility for the conception, coordination, planning, implementation and evaluation of all actions related to quality assessment, including ENADE, the indicators derived from the higher education census and other sources, and all the instruments for the 'in situ' external evaluations, which are used by SERES.

CONAES is responsible for proposing and assessing the procedures for the evaluation of institutions, courses and students, to approve the list of courses to be assessed each year by ENADE, and, in general, to advice on institutional development and articulations between the federal government and the states.

CONAES and SINAES

The current assessment system for undergraduate education was set in 2004 by Law 10.861, which established the National System of Evaluation of Higher Education (SINAES) and created a National Commission for the Assessment of Higher Education (CONAES) - a collegiate body for coordination and supervision of the System directly linked to the Minister's office - as well as attributing the responsibilities of INEP, CAPES in the process evaluation. A sequence of normative acts from then on has been regulating the infra-legal scope for the implementation of SINAES. CONAES is composed of representatives of government agencies, representatives of student, teacher and high education administrative personnel associations, and five members of free appointment by the government, based on their personal reputation on issues of higher education and education assessment.

The context for the creation of CONAES was the election of President Luis Ignacio Lula da Silva in 2002, followed by the mobilization of several sectors within the public higher education

system to reformulate the assessment system created by the previous government, based on the National Exam of Course Programs implemented by INEP. According to several of its critics, the exam and the ways it was implemented impinged on the autonomy of the higher education institutions and should be replaced by another system supervised by representatives of the education community with a strong emphasis on self-assessment. Another criticism was that the exam looked only at the outcome of the course programs, without considering the institutional context in which the institutions worked.

The first proposal for the new system was prepared by a commission of university professors, representatives of the Ministry of Education and members of the National Union of Students. The main intention was to replace what was considered a top-down with a bottom-up approach, giving more emphasis to institutional self-assessment; and to combine the assessment of outcomes with information about the quality of the academic staff and infrastructure. Another key component of the new proposal was to place the assessment in the hands of a collegial body which would represent the different segments of the higher education community, reducing, therefore, the power of the Ministry of Education and INEP. For some time, it was not clear whether the National Assessment of Courses would be maintained at all. At the end, the exam changed its name but remained mostly the same, and the implementation of the new system, combining internal and external assessments, was implemented by INEP as in the past.

The legislation established that SINAES should be based on a combination of internal and external indicators, considering the profile, mission, social commitment and institutional projects of the institutions, with participation of students, teachers, administrative employees and representatives of civic society. This was to be done through self-assessment and external evaluations, performed by external examiners. The law reestablished the old *Provão*, now called “National Exam of Student Achievement (ENADE). In practice, CONAES remained an advisory body, without its own budget and administrative structure, and all the assessment work remained under INEP and SERES.

The second component of the current system, besides the assessments, is the process of regulation and supervision of higher education, including the accreditation and renewal of accreditation of higher education institutions and the authorization, recognition and renewal of recognition of course programs. This function is implemented by the Secretary for the

Regulation and Supervision of Higher Education (SERES), established by a presidential decree of 2011. SERES' activities are overseen by a collegiate body called CC-PARES, the Advisory Board for the Program for the Improvement of the Processes of Regulation and Supervision of Higher Education, with representatives from different branches of the Ministry of Education, including CONAES and INEP, of the Ministry of Science and Technology and from public and private higher education institutions²⁰.

INEP

Founded in 1937 as a special research agency linked to the Ministry of Education, the National Institute for Educational Studies and Research "Anísio Teixeira" or INEP is responsible for the production of educational statistics to subsidize the formulation, implementation, monitoring and evaluation of educational policies in the federal, state and local governments²¹. With a staff of 441 civil servant employees in 2017, INEP implements, among others, the yearly censuses of general and higher education, the national assessment of basic education (SAEB), the National Assessment of Secondary Education (ENEM), and, for higher education, the National Exam of Student Performance (ENADE) and the in-situ evaluation of institutions and careers; and the Exam for Revalidation of Foreign Medicine Diplomas (REVALIDA). INEP's President is appointed by the Minister of Education, and its work is overseen by a Consulting Commission that includes the President the National Education Council (CNE); the president of the National Council of State Secretaries of Education (CONSED) and the president of the National Union of Municipal Leaders of Education (UNDIME). In addition, five members are appointed as representatives of civil society chosen from professionals of notorious knowledge.

²⁰ <http://portal.mec.gov.br/secretaria-de-regulacao-e-supervisao-da-educacao-superior-seres/cc-pares>

²¹ Legally, INEP is a “public autarchy”, which, in Brazilian legislation, means an autonomous, auxiliary and decentralized entity of the public administration, but supervised and protected by the State, with patrimony formed with own resources, created by law to perform specific functions of public interest. It is also described as entity of indirect public administration.

INEP - Main Expenditures, 2015-2017 (Brazilian reais)			
	2015	2016	2017
Assessment of higher education and postgraduate education	82,827,625.47	82,189,120.31	117,209,751.20
Census of Higher Education	876,205.99	443,659.42	343,250.01
School Census of Basic Education	9,893,166.60	7,506,309.51	8,118,475.96
Exams and assessment of basic education	580,610,388.63	979,562,986.81	1,089,467,930.98
Other expenditures	413,430,750.99	221,430,366.93	220,533,846.63
Total	1,087,638,137.68	1,291,132,442.98	1,435,673,254.78
Source: Sistema Integrado de Administração Financeira do Governo Federal (SIAFI)			

Table 3.1

SERES

The Secretary of Regulation and Supervision of Higher Education was established in 2011 as an office within the Ministry of Education, replacing the preexisting Secretary of Higher Education (SESU) and others. Its current organization and attributions are defined by the Presidential Decree 9005, of March 14th. 2017. It responds directly to the Minister of Education with three directorships for regulation, supervision and regulation of higher education. Article 28 of the decree lists 11 different attributions to SERES, including:

- II - to authorize, recognize and renew the recognition of undergraduate and sequential courses, in classroom and at distance;
- V - to establish guidelines and instruments for the actions of regulation and supervision of higher education, in classroom and at distance, in accordance with the current legal legislation
- VI – to establish guidelines for the elaboration of instruments for the evaluation of higher education institutions and courses.

In practice, SERES absorbed all the functions that were originally attributed to CONAES, which is not mentioned in the Presidential Decree except for the need of the directorship of regulation to work in articulation with it and other institutions. In 2015, the Ministry of Education, through SERES, issued a total of 9,260 regulatory acts, including 1,796

authorizations of new courses, 5,906 recognitions and recognition renewals of course programs.²²

In August 2012, the same year that SERES was created, the government sent to Congress a proposal to create a National Institute of Evaluation of Higher Education (INSAES), to “formulate, develop and execute the supervision and evaluation actions of institutions of higher education and courses of higher education in the federal education system”²³. In the justification for the project, it was argued that, “currently, the Ministry of Education is responsible for the regulation and supervision of some 2,667 higher education institutions (excluding academic units and campuses outside the universities) and 40,748 undergraduate courses in face-to-face and distance education, according to the courses and institutions registered in E-Mec, the electronic system for the administration of the acts of regulation of higher education. For this, about 7,000 evaluations are carried out on-site per year, according to data from the Higher Education Evaluation Board of INEP. With the necessary expansion of the network of public and private institutions of higher education, as well as the provision of undergraduate courses to meet the goals of the new National Education Plan regarding higher education, the operational capacity of the Ministry for the effective exercise of these legal attributions of evaluation, regulation and supervision of higher education, in addition to many others, will be rendered impossible”.

INSAES would have a staff of 550 persons, with an estimated cost of 43 million reais in the first year. The project gathered opposition from the private higher education sector, which perceived it as a movement to increase the bureaucratic control of the Ministry of Education on its institutions, and support from, among others, the Association of Teachers of higher education in the public sector (ADUSP) and the National Union of Students. The project is still in Congress pending a decision, but the current government has now shown interest on its approval.

The assessment of post-graduate education

Post-graduate education in Brazil is classified in two categories, *strictu sensu* (master and doctoral programs) and *lato sensu* (specializations and MBAs). *Stricto sensu* programs are

²² Ministério da Educação, *Relatório de Gestão Consolidado Exercício de 2015*, Brasília, 2016, pp. 74 and 96.

²³ <http://www.camara.gov.br/proposicoesWeb/fichadetramitacao?idProposicao=554202>

supervised and evaluated by the Coordination for the Improvement of High Level Personal (CAPES)²⁴, an autonomous foundation²⁵ within the Ministry of Education which is responsible, among other things, for providing fellowships for postgraduate education in Brazil and abroad. Latu sensu and MBA course programs are not regulated, but the institutions are required to inform the Ministry of Education about the existence.

CAPES was established in 1951 as a “National Campaign for the Improvement of High Level Personnel” and later as a Commission under the Ministry of Education, with the goal of providing support for development of highly qualified personnel for the universities and the country as a whole, through fellowships, support for advanced education and research in higher education institutions, similar activities. Post-graduate education in Brazilian universities, however, were only institutionalized with the 1968 higher education reform, and in 1977 CAPES created a system of evaluation of graduate programs based on peer reviews, which has functioned regularly since then. CAPES has 408 civil servants, and, besides the assessments of postgraduate education, maintains a program of fellowships in the country and abroad, and a program of teacher education for basic education, among others. It is supervised by a Superior Council with representatives of different agencies of the Ministry of Education, the President of the National Research Council, of Brazilian Innovation Agency (FINEP), the head of the Department of Scientific and Technological Cooperation of the Ministry of Foreign Affairs and the president of the National Association of Rectors of Federal Higher Education Institutions (ANDIFES), in addition, it has seven individual representatives of the academic community, two representatives from the business sector, and others. The assessment procedures are supervised by a Scientific and Technological Council of Higher Education (CTC), with representatives of the different disciplines.

²⁴ <http://www.capes.gov.br>

²⁵ “Public foundations”, in Brazil, are entities endowed with private legal personality, non-profit, created by law, for the development of activities that do not require direct execution by governmental organs or entities of public law. They have administrative autonomy, their own patrimony, are managed by the respective governing bodies (controlled by the government), and are financed with budget allocations and other resources. Originally, these entities were created as a means to overcome the legal rigidities of civil service and public procurement regulations. Today, like the autarchies, they are considered for almost all purposes as part of the public administration.

For its assessment, CAPES works with an elaborate system of peer review, with one coordinator for each area of knowledge (49 at the last count) and the use ad hoc reviewers. The coordinators are nominated by CAPES from lists provided by scientific institutions and members of the scientific communities. For their work, the review committees work with documentation provided by the course programs which includes data on scientific publications, number of students and graduates at the MA and doctoral levels, thesis completed, and others. Scientific publications are weighted according to Qualis, an on-line system developed by CAPES which gives weights to scientific journals according to their relevance to each field of knowledge. Course programs are ranked from 7 to 1, in which 6 and 7 should correspond to high international standards, and 5 with courses that meet good national standards. Although the universities have the autonomy to create their post-graduate courses, they may lose accreditation if they get 3 or less. The assessment takes place by cycles, with each course being accessed every four years.

CAPES - Main Expenditures, 2015-2017			
	2015	2016	2017
Fellowships for Higher Education	6,055,265,336.88	3,617,881,691.65	3,034,491,172.75
Assessment of higher and postgraduate education	10,044,325.18	10,780,857.15	15,895,694.31
Support higher and post graduate education, teaching and research	124,391,490.48	109,797,081.27	89,002,007.98
other expenditures	1,604,501,859.55	1,441,980,866.23	1,428,213,038.44
Total	7,794,203,012.09	5,180,440,496.30	4,567,601,913.48
Source: Sistema Integrado de Administração Financeira do Governo Federal (SIAFI)			

Table 3.2

Key actors and stakeholders

With 8 million students and 2,400 institutions, the higher education sector in Brazil has a large number of important actors and stakeholders, some of them easily identified by their organizations, others less institutionalized but not less important.

The first category includes the Ministry of Education, the state governments of the main states, the different categories of higher education institutions, the scientific community, the unions and associations of university professors, the professorial associations, the

associations of higher education employees, and the student associations. The second category includes the families that send their youngsters to study, the adult population seeking better qualification and a better place in the job market, and the employers in the public and private sector in need for qualified persons to hire.

Among the higher education institutions, the main cleavage is between the public and the private sector. The public sector comprises mostly the federal institutions, but also state systems such as the ones in São Paulo, the largest, and also Paraná, Santa Catarina and others. These institutions are autonomous in academic matters but get their resources from budgetary allocations from the federal or state governments (in the case of São Paulo, a fixed percentage of the state tax returns), and are subject to strict civil service regulations on levels payments, promotion, as well as investments and other expenses. Since they cannot charge tuition, their ability to get independent income is limited. In general, they are led by rectors elected by their local community of academics, students and employees, and, politically, one of their main tasks is to lobby the government for more resources. In the public debate about charging tuition and getting more involved with the private sector, they tend to argue for the importance of their public role and against the risks of privatization. At the same time, many public institutions have created private-law foundations to administer research, technical assistance and resources from extension work.

In the private sector, with 75% of the enrolment, the main cleavage is between the non-profit and the for-profit sectors. Legislation allowing for for-profit institutions was introduced in the 1990s as a recognition that many institutions that were legally defined as non-profit were in fact doing business on disguise. The new legislation established clear rules for non-profit institutions, which are required to demonstrate their philanthropic nature and are tax exempt. Since then, many private institutions opted to become for-profit, and started a strong process of acquisitions and consolidation. The private sector is organized in different associations – for profit, not-for-profit, religious, communitarian – and one of their main political activity is the effort reduce the regulatory powers of the Ministry of Education and get more public subsidies.

Most of the courses in the private sector are in the evening, cheap, and targeted to low-income, often older persons who would not pass the entrance examinations for the public sector and need to work during the day. To increase its scope, they are expanding distance

education and the offer of vocational courses, which the public sector usually does not do. But there is also a small but growing segment of the private sector that is competing with the public sector in terms of quality, charging high tuition and targeting students that could be admitted to public institutions but resent the political turmoil and budgetary instability that the public institutions often suffer. There are few comprehensive private universities with significant research and graduate education, among them the Catholic universities in Rio de Janeiro and other places. There are also a few international higher education institutions operating in Brazil, such as De Vries and Laureate, which run local institutions without distinctive international content.

In general, the private sector perceives the quality assurance system implemented by the Ministry of Education as unfair to them, by being too bureaucratic, favoring the public university model which is too expensive for the private sector to maintain, and resistant to innovation. Their main political activity, through their different organizations, is to deal with the federal government to ease their restrictions, and to get more subsidies. They have representatives in federal advisory bodies such as the National Council of Education and CONAES, and one of their feats was the creation, in 1997, of the “University Centers”, mostly private, which are teaching institutions that have the same autonomy of the universities. In terms of financing, since 2004 the for-profit institutions are tax-exempt if they receive a given number of low-income students for free or paying half tuition (the PROUNI program) and have benefitted from the very generous program of student loans guaranteed by the Federal Government, which cost to the government an estimated 32 billion reais (US\$ 10 b.) in 2016 and was recently cut down in size and reformulated.

Most of the research in Brazil takes place in public universities, particularly in the three state universities of São Paulo and in the main federal universities such as Rio de Janeiro, Minas Gerais, Rio Grande do Sul, Pernambuco and a few others; and there is also a small number of non-university research institutions and post-graduate programs associated with the ministries of Science and Technology, Agriculture, Health and Defense, such as the Institute of Applied and Pure Mathematics (IMPA) the Instituto Oswaldo Cruz (health) and the Technological Institute of Aeronautics (ITA). There are no separate research careers in the universities, and most of the teaching staff in these institutions have full-time contracts that assume that half of their time will be dedicated to research. In practice, however, and in spite

of the growing number of professors with doctoral degrees, only a part of the professoriate can actually compete for research funds provided by agencies such as the Nacional Research Council (CNPq), the São Paulo Foundation (FAPESP) and others. According to the 2016 census of higher education, there were 398 thousand higher education teaching post in the country (the same person can teach in different institutions), of which 153 thousand had doctoral degrees; the figures from the National Research Council are 200 thousand researchers, of which 130 thousand with doctoral degrees). High quality research, however, is much more concentrated. Researchers are organized in scientific institutions for the different disciplines and also in associations of postgraduate programs. They participate in the peer review mechanisms of CAPES, CNPq and other agencies and demand resources for equipment, fellowships and additional benefits which are not available to the others. One consequence of the high demand for research money from these stakeholders is that resources for research tend to be scattered among a large number of small research groups, rather can concentrated in better endowed centers. According to CNPq, there were 37.6 thousand research groups in the country in 2016, with 3.9 researchers per group²⁶. In 2017, CAPES announced a new program of additional support for centers of excellence.

Professors who work in public universities but are not strongly engaged in research are better described as part of the general civil service. They are organized in trade unions and associations, have job stability, and get mobilized in support for better salaries and more favorable promotion rules. Through the years, they were able to introduce legislation establishing a unified career and equal pay in all federal institutions, and to get promotion not only by merit, but also by seniority. Politically, they stand for university autonomy in the election of their authorities, more public subsidies, and against the perceived threats of privatization, including proposals to charge tuition in public institutions.

In contrast, teachers in the private sector do not have job stability and are not organized in trade unions. Most of them teach in more than one institution, are paid by the hour or with part-time contracts and can be dismissed at will; this is the situation of 85% of the teaching contracts in the for-profit private sector, and 67% in the not for profits. It is an important

²⁶ <http://lattes.cnpq.br/web/dgp/censo-atual/>

stakeholder which, however, is not represented and to not have a voice to be heard in the public debates on higher education policy.

The census also identified 614 thousand administrative and technical personnel in non-teaching functions, of which 143 thousand in federal and 64 thousand in state institutions. Most of these persons work in administrative tasks, since high-level management posts are occupied by the teaching staff. In public institutions, they are also civil servants, enjoy the same job stability as the academics, and tend to join them in their demands for salaries, promotion and working conditions.

The students are formally represented by the National Union of Students (UNE), established in the 1940s and with a history of mobilization against fascism, during World War II, and against the military regime in the 1964-84 period²⁷. There are also state unions and student unions and associations in the universities, and all public universities include student representatives in their councils and deliberative bodies. Participation and voting in the selection process of student leaders is voluntary, and the leadership in UNE and other student associations tend come from small, radical political parties and social movements. The political agenda of the student associations tends to be a combination of very practical demands, such as cheap restaurants and half-price for cinemas and free public transportation for students, and very radical mobilization, including strikes and the forceful occupation of university buildings against the perceived threats of privatization or the presence of police force in the universities. UNE has formally supported the elections of presidents Luis Ignacio Lula da Silva and Dilma Rousseff and has financial enjoyed support of government agencies and state companies for its activities.

Few universities have established links with their alumni, and Brazilian higher education institutions do not have the tradition of getting support of their former students for their activities. However, once graduated, the students are required to join and pay annual fees to one of about fifty professional councils that regulate their professional activity and has the mission to protect their market niche. These councils are public institutions reminiscent from the corporatist political model adopted by Brazil in the 1930s, which includes also the trade unions and the business federations. Some of best known of these institutions are the Federal

²⁷ <https://www.une.org.br/>

Councils of Medicine, Engineering and Architecture, Administration, Dentistry, Nursing, Pharmacy, Journalists, and others. For lawyers, there is special institution, the Brazilian Order of Lawyers (OAB), which has a different legal status, but similar functions. All these and many other professions are regulated by special laws which define the skills their members are supposed to have, the activities they can perform, and their job market privileges, similar to the traditional market regulations that exist elsewhere for medical doctors and layers.

Since, to enter one of these professions, it is enough to have a corresponding degree from a Brazilian higher education institution, the councils tend to keep close watch on the curriculum of the different course programs, and, in the case of law, medicine and dentistry, the professional councils are formally involved in the processes of authorizing the establishment of new institutions, in coordination with the Ministry of Education. Few of these professional associations are involved in institutional or student assessment, but, to practice law in Brazil, it is necessary to be approved in a national exam implemented by OAB. There is no similar exam for medical doctors, but medical specializations are tightly controlled by the medical professional entities.

The current composition of CONAES is a good example of how the different stakeholders are called to participate in the collegial bodies at the Ministry of Education. From the government, it includes representatives from INEP, CAPES, SERES and the Secretary for Technical and Vocational Education (SETEC); there are five individual member with “notorious knowledge on education”, appointed directly by the Minister of Education; and persons representing the National Union of Students (UNE), the National Association of Private Universities (ANUP), and the Federation of Trade Unions of Technical-Administrative Workers in Public Higher Education Institutions of Brazil (FASUBRA).

It is worth observing that there are almost no representatives of the business sector – industry, agriculture, commerce, services – in the collegial bodies in the Ministry of Education, including the National Council of Education, CONAES and INEP. The business sector is organized in their own federations and run their own systems of vocational training, financed by taxes, mostly for specialized workers, and do not usually show a concerted interested in getting involved with higher education.

Chapter 4: Quality Assurance: Quality Measures and Instruments

This chapter offers an overview of the policies and instruments for quality-assurance in Brazilian higher education, both at the undergraduate (bachelor and similar degrees and at post-graduate levels (Master's and Doctorate programs).

4. 1 Procedures for initial approval of institutions and course programs

In the public sector, new higher education institutions are established by the Executive – the state Governor if it is a state-owned institution, or the Ministry of Education, if it is a Federal-owned institution. In both cases, the proposal must be approved by the respective Houses of Representatives. Public institutions may be established from the beginning as universities. Private institutions are authorized first as an isolated school. In order to be recognized as a University Center or as a University, the private institution should be operating for a number of years and provide proof of good quality, as evaluated by the SINAES (see below), and fulfil a number of legal and normative requirements.

In the private sector, a request for a new institution should be submitted by the legal representative of the maintaining institution to the Ministry of Education's Secretary of Higher Education Regulation and Supervision (SERES), to be accepted and then accredited²⁸. All forms for the authorization of new institutions are available on-line at the E-MEC system²⁹. When submitting the proposal of a new institution, the maintaining institution should present the following information:

- Statement of the institution's *mission*, considering the profile of the undergraduate programs that will be offered.
- The institution's *pedagogic project*, detailing:

²⁸ The latest version of these procedures is described in the Ministerial Order (Portaria) 23 of December 2017, in the annex.

²⁹ <http://portal.mec.gov.br/e-mec-sp-257584288>

- the pedagogic principles that will orient the decisions taken by the institution for opening new programs; the philosophic and educational guidelines that define the citizen and professional profiles that the institution expect to form.
 - Reasoning about the fitting between the training offerings and the regional needs, considering the social and economic development
 - How the new institution will answer to the needs of social, technological, political and cultural inclusion and guidelines for promoting environmental preservation.
 - A description of the institution's policies for teaching, including the support for teaching and curricula innovation.
- The Institution's *plan for expansion*, both at the undergraduate and postgraduate levels.
 - The *institutional pedagogic plan*: a description of the institution's policies for supporting and evaluating teaching practices, defining curricula contents, and supporting innovation in teaching, including the adoption of new technologies for learning.
 - Academic and non-academic staff profile:
 - Policies for recruiting academic personnel, including the desired academic training and profile, and the plan for the academic career. These policies and the academic career should conform to the regulations issued by SERES and the National Council of Education regarding the desired profile of the academic personnel and career for different institutional profiles (isolated schools, university centers and universities).
 - Training alternatives for developing teaching skills, including training in LIBRAS (Brazilian Sign Language) for the academic personnel.

- Policies for recruiting and career perspectives of the non-academic personnel, including the provision of personnel needed for technical support for teaching, research, and outreach activities.
- The Institution's *organizational chart* and *governance mode*, describing:
 - The channels for assuring the participation of academics and students in the decision of academic affairs.
 - Procedures for self-assessment, considering the ten dimensions for institutional evaluation described in the Law 10861/2004 and detailing the procedures and processes that will guide the self-assessment, including the instruments for data-collection, guidelines for writing the report and uses of the data collected in the self-evaluation exercise
- A description of the new institution's infrastructure, including:
 - Classrooms, laboratories and other spaces for supporting learning activities.
 - The library infrastructure, and collections (including journals), the plan for library expansion and updating, and the provisions for students' access to the library, as well as the identification (and credentials) of the person in charge of the library.
- Provisions for support of people with special needs, including a description of the adaptations of the infra-structure, policies for ensuring accessibility, support for visually impaired persons and provision of translation services of LIBRAS for students and academics in need of these services.
- The plan for institutional self-sustainability, describing assets and expected income and expenses, as well as providing information regarding the financial and fiscal situation of the institution and upholders.

The documentation is evaluated by SERES and then an external in-situ evaluation is organized by INEP. Once evaluated and accepted, the Ministry of Education, through SERES, issues the institutional accreditation that enables it to require the legal authorizations for launching

undergraduate programs. The institutional accreditation should be renewed periodically, considering the deadlines established in the accreditation process of the institution, with a maximum of three years for isolated faculties and university centers and five years for universities. The process of re-accreditation also considers the evaluative cycle of ENADE (see below).

Universities and university centers enjoy extended academic autonomy. While they are supposed to provide information to the Ministry of Education when organizing a new program, they do not need to wait for the legal authorization for launching undergraduate programs, although they do need authorization from CAPES for launching postgraduate programs. Besides the institutional autonomy for launching undergraduate programs, the Universities also have autonomy to expand its geographic coverage by offering programs outside the region to which it was originally authorized.

In order to be accredited as a university center, an isolated school should be in operation, accredited by the Ministry, for at least 6 years and should have at least 20% of its faculty in full-time contracts and at least 33% of its faculty should hold master's or doctoral degrees. The institution should also demonstrate a satisfactory performance, with at least eight undergraduate programs evaluated as satisfactory, and a good institutional performance in the last evaluative cycle conducted by SINAES, and provide indicators attesting some research activity linked to undergraduate training.

By law, universities are supposed to provide for teaching, research and outreach activities. Thus, in order to be accredited as a university, the university center should have at least 1/3 of its faculty in full time contract, also 1/3 of all academics holding master or doctorate degrees, and offer at least four programs master and two doctoral programs, all recognized by CAPES. The institution should also provide indications of quality, reaching level 4 both in the institutional evaluation and in the General Index of Courses. The process for accrediting for the first time a university is a length process and includes at least one visit of an ad-hoc evaluation committee and hearings at the Ministry of Education.

[Initial authorization for undergraduate course programs.](#)

For each undergraduate course program that will be launched, the isolated school should require and wait a specific authorization from the Ministry of Education. When the new

undergraduate program is in Medicine, Odontology or Psychology, the Ministry of Education should consult the National Council of Health to assess the opportunity and the necessity for a new program in these fields. Similarly, when the new program is in Law, the Ministry of Education should consult the National Bar Association (OAB). Only programs counting with the authorization of the Ministry of Education can enroll new students. University centers and universities are exempt from previous authorization for launching a new undergraduate course. Nevertheless, in all circumstances, when the first cohort of students concludes the first half of the course program, the Institution is supposed to require the formal recognition of the program from the Ministry of Education. Only recognized programs are allowed to issue diplomas. The recognition should be renewed at the end of each evaluative cycle conducted by the SINAES.

The documents presented for the authorization (and recognition) of a new course program should cover the following items:

- The description and justification for the program, which should also consider the regional and social needs of the region, and its pedagogical approach for learning.
- The links between the program and the institution's general pedagogical plan.
- The expected profile of the postgraduates, considering the professional profile and the more general competences for citizenship and cultural aspects.
- The activities the students are supposed to attend, including research and outreach activities linked to the training at the undergraduate level. University Centers and Universities should have provisions for a number of fellowships for students interested in developing research training (research initiation), under the supervision of an academic.
- The academic profile, qualification and type of contract of the academics that will teach in the program.
- Instruments and procedures for self-evaluation, following the guidelines issue by INEP and SERES.

Programs in private and in public institutions are supposed to follow the same guidelines and have similar academic and pedagogical profiles. Nevertheless, one should note that it is easier for a public university – because of its high level of public subsidy – to meet the parameters established by the legislation and the normative bodies. The typical academic contract in public is full-time, and students have easy access to scholarship programs for research initiation at the undergraduate level, provided by the federal and states' research foundations. In the case of private sector, in particular in for-profit institutions, all these activities should be supported by tuition.

Initial authorization for postgraduate programs

As described in Chapter 2, postgraduate education in Brazil comprehends two different modalities: *lato sensu* courses, also known as *specialization*, which includes the MBAs; and the *strictu sensu* programs, which include professional and academic master and doctoral programs. In 2016 CAPES launched guidelines for a new branch of professional doctoral degrees, but up to now there is no program approved with this profile.

Any higher education institution is allowed to offer postgraduate education in *lato sensu* mode, and there are no provisions for authorization or any procedure for evaluating these programs. In order to be considered as a specialization, the program should provide, at least, 360 hours of lectures in class and at least 30% of the academic personnel should hold masters or doctorate degrees.

The entire governance of the *strictu sensu* postgraduate education is under the umbrella of CAPES. While the formal recognition of new programs of postgraduate education is an attribution of the National Council of Education, this decision is critically dependent on the evaluation done by CAPES regarding the conditions and quality of a new proposal. While universities and university centers have formal autonomy for establishing new postgraduate programs without previous authorization of CNE, they should initiate the process of recognition up to 60 days after launching the new program.

The process for recognition of a new postgraduate program involves, first, the documental analysis done by CAPES' staff, and a review from CAPES' Directorate of Evaluation, first by assessing whether the field of knowledge where the proposal is inscribed is pertinent. Then, a written statement is issued by the Field Coordinator, on whether the proposal meets the

guidelines for postgraduate education as defined by the area's Committee. Afterwards, the proposal is evaluated by an ad-hoc committee of peers that decides whether the proposal is good enough to be granted the right of issuing postgraduate degrees. This evaluation is submitted to CAPES' Scientific-Technical Committee, which is responsible for issuing the final assessment that will approve (or not) the recognition issued by the National Council of Education.

As detailed below, the entire evaluation of postgraduate education (even for the professional programs) is strictly organized by disciplinary fields. Currently, there are 49 disciplinary area committees (which include some the interdisciplinary areas). Each committee is coordinated by a specialist renown among the peers, that serve CAPES as peer evaluator for the entire evaluation cycle in a *pro bonus* basis. The appointment of a coordinator, a prerogative of CAPES' President, is a lengthy process, which involves consultations with all programs under the same area. These consultations end up with a list of names that are submitted to CAPES' President, who picks a name in the list or – in rare occasions – appoints another name. It is upon the Coordinator to appoint other members of the Committee, which can vary in number and institutional affiliation.

Besides attending the special parameters of quality defined by the field of knowledge where the new program will be ascribed, all proposals should present information regarding: 1. The consistence of the proposal, with detailed information regarding the program's curriculum, fields of specialization, bibliographical references and relevance of the proposal for the field. 2. A description of the credentials and academic production of the academics that will be responsible for the program. The permanent academic staff should hold full-time contracts and provide evidence of their academic commitment to the areas and subareas that will be covered by the program. The proposal should also be accompanied by a sample of the more relevant academic products authored by the academics in the permanent staff (at least five for each academic). The proposal should also present detailed information regarding the infrastructure for learning and research, including laboratory, IT facilities, classrooms and library. Once approved, the new program receives a provisional evaluation of 3 (out of 7 points), is entitled to a small support from CAPES, including fellowships and, most important, the degrees awarded by the Program are considered valid for the whole country.

4.2 Overview of quality measures and instruments

SINAES, the Brazilian System for Evaluation of Higher Education (Law 10,861, April 14th. 2004), provides the main framework of the quality assurance system, mainly regarding undergraduate education. In this framework, the quality of higher education is to be assessed considering three dimensions: the institutional dimension; the undergraduate program dimension, and the student performance dimension. INEP, the *Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira*, is the executive branch of the system, being in charge of organizing all the procedures, which includes documental evaluation, site visits, the collection and organization of statistical data used in the evaluation, the implementation of ENADE and the calculations of the final rankings of course programs and institutions, as described below.

To comply with the information requested by SINAIS, the higher education institutions need to establish an internal Commission of Evaluation (CPA), responsible for collecting and organizing the data and filling the forms that should be sent to INEP, both for evaluation proposes and for the annual census of higher education, which is also organized by INEP. It is also the responsibility of the CPAs to engage the institution as a whole and the programs in the procedures for institutional and courses evaluation, including the provision of logistics for the occasional *in-situ* visits of experts sent by INEP for evaluation procedures.

The main indicator for the evaluation of programs is the Provisional Program's Score - **CPC** (*Conceito Provisório de Curso*) which is calculated considering the performance of the students in the ENADE, the profile of the academics teaching in the program – mainly the percentage of postgraduate academics (masters' and Doctorate holders), and the percentage of academics in full-time contract – and the responses given by the students to a survey evaluating the quality of program (see the details of this calculation below). Scores in **CPC** range from 1 to 5. Programs with scores 1 and 2 are included in the schedule of experts' visits for *in-situ* evaluation, organized by INEP. Programs with higher scores can opt for asking for the *in-situ* evaluation (which can revise the Score) or accept the Score, when the CPC is converted into a final Program's Score (Conceito de Curso, **CC**).

While the norms establish that institutional evaluation should start from the institution's mission and the results of the self-evaluation conducted by its CPA, the hard-core of the procedures for institutional evaluation revolves around issuing a single metric that is

supposed to capture, in a comparative way, the quality of performance of an institution. The Average Score of Programs - IGC, Índice Geral de Cursos - is calculated for each institution at the end of an evaluative cycle (see below), considering the CPC of each undergraduate program organized by the institution and evaluated by INEP, and the Scores the institution's master's and Doctoral programs received at CAPES. As with CPC, the Scores in the IGC range from 1 to 5. Institutions with lower rates (1 and 2) are included in the schedule of experts' visits for *in-situ* evaluation, organized by INEP. Other institutions can opt for the *in-situ* evaluation or accept the IGC as the Institutional Score – **IC**, *Conceito Institucional*.

All the Scores concerning the evaluation of programs and institutions are made available to the public and stakeholders through the Internet by the site E-MEC. In this site, anyone can search for information regarding the legal situation of a particular program (if authorized or not, or recognized or not), and the status of the institution – if accredited or in process of accreditation. E-MEC also informs on the average Score of each program in the past evaluation cycles (IGC and average CC in the past evaluation cycles), and the institution's IGC and current IGC for each program offered by the institution.

The assessment of postgraduate course programs

Brazil has a long tradition in postgraduate education evaluation. The first exercise in this area happened in 1976. At that time, CAPES, then the most relevant stakeholder in the area, as it was responsible for the scholarships supporting postgraduate education, organized the first assessment of the quality of postgraduate education. Since its inception, the initiative counted with strong support among the most active members of the scientific community. At that time, postgraduate education was expanding, supported by resources coming from the newly created National Fund for Science and Technology Development (FNDCT), launched by the National Planning Ministry to support S&T research, and scholarships provided by CAPES and the National Council for Research and Development (formerly the National Research Council, CNPq). The evaluation was perceived by the agencies and the scientific community as a mechanism to assure this expansion would not happen at the expense of quality.

CAPES' evaluation of Brazilian post-graduate programs is carried out every fourth year. The last evaluation cycle was carried out in 2017. Post postgraduate evaluation is strongly based on peer review, but also consider the main parameters proposed by the National Plan for the Development of Post-Graduation (Plano Nacional de Pós-Graduação, PNPG), a main policy

document establishing the main guidelines, strategies and goals for the development of post-graduation in Brazil. The PNPG is formulated for a period of 10 years and provides detailed measurements of success that are supposed to hold true for all postgraduate programs³⁰. The task of evaluating all programs are responsibility of the area coordinators, nominated by CAPES' Presidency, considering the names chosen after consulting the coordinators of all course programs in one area. The area coordinators also have the prerogative of nominating a commission composed by a variable number of colleagues from the same area to help in the task of evaluating all programs in the same area. Evaluation of all programs happen at the same time and follow similar guidelines. At the end of the evaluation cycle, each program receives a detailed report and is Scored in a scale from 1 to 7. Scores 6 and 7 are reserved for doctoral programs considered of international quality. Post-graduate programs offering only master's diploma can only aim for a maximum Score of 5. Programs receiving Scores 1 or 2 loses the accreditation and are forbidden to enroll new students.

The basic design of postgraduate evaluation was (and still is) strongly dependent on peer review evaluation carried out by representatives of the local scientific community. The main focus of this evaluation is the academic output produced by the permanent staff linked to a postgraduate program in the role of thesis and/or dissertation advisors.

Eventually, CAPES evaluation, performed periodically and widely publicized, was accepted by other agencies and stakeholders as a quality reference for postgraduate programs. In this way, CAPES evaluation became a strong policy instrument, successfully connecting performance with reward. The better the program evaluation, the greater its chances for accrue support as expressed in students, scholarships, investment for infrastructure and research grants.

³⁰ CAPES' Presidency nominates a specific Commission for proposing the PNPG. The Commission is composed by prestigious academics, and a representation of the main recognized stakeholders of Brazilian post-graduate education. Besides a representation of renowned academics, the Commission in charge of proposing the last PNPG (2011-2020) was composed by representatives from the Ministry of Defense, the Ministry of Science, Technology and Innovation, the Brazilian Council for Science Development (CNPq), the Secretary for Strategic Planning of the Presidency of Republic (SAE-PR), the Brazilian Forum of Post-Graduate Deans (FOPROP), the Brazilian Association of Post-Graduate Students (ANPG), and the Brazilian Council of State Secretaries of Education (CONSED).

In spite of its positive aspects, the original guidelines adopted by CAPES evaluation had some hindrances that became more and more apparent as time went by. The small size of the Brazilian scientific community and the visibility of the peer-committees work created unavoidable parochial pressures. One consequence was score inflation. In 1996, four in every five programs were placed in the two highest ranks, A or B. It meant that CAPES evaluation was quickly losing any discriminating role.

Reacting to this situation, CAPES authorities established in 1998 a new model for program evaluation. This new model preserves the authority of the peer committees but imposes more formal rules for evaluation. It reinforces the adoption of international standards for all fields of knowledge; imposes a set of parameters for faculty evaluation, stressing their academic background (degree) and research performance as measured by their publishing patterns; extends the periodicity of evaluation from two to three years (since 2014, to four years); adopts a more comprehensive procedure, evaluating master's and doctoral programs together, instead of evaluating each program per se; and adopts a scale of seven points (instead of five), where the ranks of 6 and 7 is restricted to programs offering doctoral degrees that could be qualified as good or excellent by international standards, and establishes that 3 was the lowest acceptable rank for successfully accrediting a post-graduate program.

4.3 Assessing undergraduate student performance: ENADE

ENADE (student Performance Examination) is an exam applied every year to all students finishing Bachelor Programs in selected areas³¹. The exam evaluates the academic performance of students taking the area's curriculum parameters as a reference³². The exam

³¹ ENADE is mandatory for all students from the Federal system, which includes all Federal owned institutions and private institutions. State and Municipality owned institutions are not under direct jurisdiction of the Federal authority. Nevertheless, almost all state level councils of education also impose the participation in ENADE to all institutions under their jurisdiction. Only a few state-owned universities have autonomy to decide if they participate or not in ENADE. The most conspicuous case is the University of São Paulo – USP – where the university senate and rectory still resists ENADE.

³² The National Curricula Parameters are defined for the main bachelor and Licenciatura programs recognized in Brazil. It is the responsibility of the National Council of Education to define these parameters, that serve as a guide for the HEI when organizing their curricula proposals and provide the framework under which new proposals for bachelor and licenciatura programs are evaluated.

is organized by INEP and happens once a year. The same exam for each area is offered through the entire country.

Each year, ENADE focus on a select number of areas. Every three years, ENADE finishes a cycle, covering all bachelor, licenciatura (teaching license) and vocational (“technological”) programs. The vocational areas are grouped in 13 “axes”. The cycles are as follows:

Bachelor's and Licenciaturas:

Year I - Health, Agrarian Sciences and related areas;

Year II - Exact Sciences, Licenciaturas and related areas;

Year III - Applied Social Sciences, Human Sciences and relate.

Vocational axes

Year I - Environment and Health, Food Production, Natural Resources, Military and Security;

Year II - Control and Industrial Processes, Information and Communication, Infrastructure, Industrial Production;

Year III - Management and Business, School Support, Hospitality and Leisure, Cultural Production and Design.

The preparation of each exam mobilizes a dedicated team of INEP’s staff and a variable number of specialists (usually academics) serving INEP as consultants. Consultants are selected by tenders launched by INEP. Once selected, the consultant goes through a training seminar and receives guidelines for developing written and multiple-choice questions focusing in her field of specialization. The proposed questions developed by the consultants are then evaluated by the technical team of INEP. Only questions accepted are paid. The final evaluation covers two parts, one measuring the general competences, skills, qualifications and civic values of the student (10 multiple choice questions), and the other evaluating the area’s specific knowledge and competences (27 multiple choice and 3 written questions).

The entire process of organizing and applying the evaluation mobilizes thousands of collaborators. ENADE examination is carried out in one day, organized around the entire country, and is mandatory for all students finishing their studies in the areas selected for that year. Once selected for ENADE, the student is asked to access an on-line survey – *Questionário*

do Estudante - which collects data on her socio-demographic profile, school experience at primary and secondary levels, learning practices and attitudes, learning and civic experience within the HEI –which includes an appraisal of the support given by the teaching staff - and personal appraisal of the HEI's services, facilities and infra-structure. Only after filling this survey the student has access to the internet site where she can find information regarding the logistics for attending the exam.

While attending the exam is mandatory and a condition for the student to receive her/his diploma, the student's individual performance is only disclosed to the student, and under her/his demand. However, the average performance of the students in the ENADE and the data collected in the Survey are a central tool for the entire quality assurance procedures organized by the Brazilian government.

ENADE has never been subject to an overall independent assessment of its validity and reliability. Nevertheless, in the Brazilian academic journals there are a number of studies analyzing ENADE's exams and indicators, as well as its results evaluating areas and kinds of programs. A list of these studies is presented in annex.

ENADE's indicators

The student's ENADE rating is the standardized student performance at ENADE, considering his/her performance in the two components of the exam (general education, weighted 25%, and the questions related to their field, weighted 75%). The Student's ENADE rating varies from 0 to 5.

The Program's ENADE Rating – *Conceito ENADE de Curso* - is calculated considering the average of its student's ENADE rating. The average performance of the Program's students is standardized and adjusted and translated into a ranking ranging from 1 to 5. The rank classifies the program considering in what quintile its average students' performance falls, considering the performance of all students in the same area. Thus, programs rated 5 are programs where, on average, students' performance are in the highest quintile, and programs rated 1 are programs where, on average, students fall in the lowest quintile.

Student's performance in ENADE, when compared with the student's prior performance in ENEM – the national exam for secondary education – is also used as a measure of the added value created for the student by attending higher education.

A bit of history:

In its current format, ENADE succeeds a former output evaluation, the ENC – Exame Nacional de Cursos. Created in 1995, ENC, popularly known as “Provão”, aimed to assess the learning contents of programs in specific areas. The number of areas covered by the ENC grew with time, and in the last edition, in 2003, it already included 23 different areas of learning. ENC was mandatory for all students finishing the bachelor and licenciatura programs in these areas. As in ENADE, attendance to the exam was a necessary requisite for granting diplomas. Its focus were the competences and skill developed by the students in each field, and from the beginning it was used as a tool to steer the entire system in the directions deemed satisfactory. From the beginning, results of ENC were widely published and raised intense interest in society and competition among the HEI. ENC was strongly opposed by members of the academic community, mostly in the public sector, resisted by members of the private sector, and boycotted by the student movement. Nevertheless, it grew in popularity and support in society as whole, since it created, for the first time, a clear and intelligible sign of quality (or lack of) for programs, both in public and private sector, that could guide decisions from families and students.

With the change in the federal government in 2002, as described in chapter 3, the continuation of ENC was questioned, but eventually it continued with some modification as the current ENADE. In the first editions, ENADE were designed to be applied to only a sample of students finishing the bachelor or equivalent program, and it also innovated for including a sample of freshmen for each HEI, in the same areas under evaluation. The whole idea was to compare the performance of students attending introductory courses with the performance of students finishing the same course, which could provide an indicator to evaluate the aggregated value for the student attending a specific program, the IDD, Indicator of Differential Performance.

In its first version, the IDD was calculated considering the difference in the average performance in ENADE of students entering in a program, and the average performance of students finishing the same program. Since 2010 ENADE became compulsory to all students finishing an undergraduate program (bachelor or equivalent program). Since 2012, it became compulsory to all students finishing their studies in the second semester of that year and

those finishing their programs in the first semester of the following year³³. When ENADE became compulsory for all students, the costs for organizing the Exam experienced a large increase. At that time, another exam also organized by INEP, the ENEM, the National Exam for Evaluating the Secondary Education, expanded its coverage when it became the main entrance examination for access – first to the Federal institutions, and afterwards, to almost all public institutions and some private institutions. Thus, since 2014, the IDD is calculated considering the average performance of students both at ENEM and ENADE³⁴.

4.4 Evaluation of undergraduate programs

There are a number of relevant indicators derived from ENADE. As said before, the main indicator for the evaluation of programs is the Provisional Program's Score - CPC, *Conceito Provisório de Curso*. CPC is calculated considering three dimensions: the performance of students at ENADE, the academic qualification and formal conditions of work of the academic personnel³⁵ giving classes in the course – informed by the HEI when filling the data for the annual census of higher education, and the student's assessment of the course's didactics, infrastructure, and the new (professional) opportunities opened by the course. Data for the last dimension are collected in the survey applied to all students at the time they are enrolled to attend ENADE.

³³ These successive changes in the ENADE format are responses to gaming manoeuvres detected in some institutions, mostly in the private sector, where the results of ENADE are central for deciding the future of programs and even institutions. In fact, while the performance at ENADE is not relevant for the student, the average performance of its students is crucial for the private HEIs, since many regulatory measures they are subject are decided based on this and other derivative indicators.

³⁴ Estimation of the IDD of a particular course is calculated considering the average added value of the program, considering the student performance at ENADE and his/her former performance at ENEM. Students that didn't attend the ENEM, which is not compulsory, are not counted for this estimation. For students attending more than one ENEM, it is selected the exam nearest to the year the student was firstly enrolled at the course, considering a window of three years (see analysis of this calculus in annex).

³⁵ This dimension emphasizes the proportion of academics with full and/or part time contracts (which strongly penalize programs where most of the academic personnel have per-hour paid contracts), and academics with Master's and doctorate. Courses that have academics in per-hour paid contracts are rated zero in the first indicator, and courses taught only by academics without academic credentials (master's and/or doctorate) are rated zero in the second indicator.

From 2007, the first time the CPC indicator was computed, up to today, the trend has been to diminish the relative weight of ENADE related indicators (from 70% in 2008 to 55% in 2017), and the weight of the student's assessment of the course (from 20% to 15% in the same period) and increase the relative weight of the data related to the academic qualification and conditions of employment of the academic personnel (from 20 to 30%).

At the end of the ENADE's evaluative cycle, INEP issues the Average Score of Programs of each institution – the IGC, *Índice Geral de Cursos Avaliados na Instituição*. IGC considers the average CC of all undergraduate programs, weighted by the proportion of students enrolled in each program; the average CAPES evaluation of the Master's programs, weighted by the proportion of students enrolled in each program, adjusted for varying from 0 to 5, and the average CAPES evaluation of the Doctoral programs, also adjusted for varying from 0 to 5, weighted by the proportion of students enrolled in each program. Therefore, the IGC compose the HEI evaluation at undergraduate and postgraduate level. In HEIs where postgraduate education is not offered, IGC corresponds to the institution's average CC weighted by the proportion of enrollment in each program.

4.5 Evaluation of post-graduate programs

With the 1998 reform, CAPES introduced two main auxiliary instruments guiding post-graduate evaluation: first, it adopted a form that all programs are supposed to fill out, providing standardized information by which all programs will be evaluated. In time, these forms were converted into an online platform – the Coleta CAPES, at Sucupira Platform³⁶ – where all programs are supposed to register annually all academic activities and outputs from the students and the permanent academic³⁷ staff into standardized forms. Second, CAPES

³⁶ <https://sucupira.capes.gov.br/sucupira/>

³⁷ All the regulatory framework of post-graduate education strongly emphasizes the difference between the permanent academic staff linked to a program and the academics that collaborate with the program. The permanent academic staff are academics with advisory prerogatives and formally employed by the HEI, with full-time contracts, and/or with formal teaching loads at the postgraduate program. Each program is supposed to have an academic core. Each academic could be counted as a member of the permanent staff to up to two programs, nationwide. Collaborators may be accepted in the role of advisors, but their academic production does not count for the Program evaluation. There is also a minimal proportion between the number of academics in the permanent staff and the number of academics accepted as collaborators.

adopted a standard procedure for evaluating and ranking the journals where the Brazilian academics publish their articles, which is known as the system Qualis.

Qualis ranks all journals where Brazilian academics and students linked to the post-graduate system have published. The list of these journals is collected directly in the data-base generated by the Sucupira Platform. The coordination of each area is free to define the criteria and the procedures for ranking the journals where students and academics linked to its programs have published³⁸. There is one Qualis for each area, and it is not uncommon that the same journal receives different rankings according to the criteria adopted by different areas. According to Qualis rules, the number of journals classified in the higher ranks (A1 and A2) cannot surpass 20% of all journals listed for the area³⁹. Because of this limitation, it may happen that a publication in a very prestigious international journal is classified very low in one area if the journal's main subject is not directly linked to the area.

While the lists generated by the Qualis could be revised every year, most areas only revise the lists every four years, when CAPES organize its quadrennial evaluation, and it is up to the area's coordinator to decide if it is the case of updating the criteria for the journals' ranking or not. There is a Qualis-books also. Programs are supposed to send to CAPES a copy of all books written or counting with participation of their academics and/or students. All books are evaluated and ranked in a similar way and this evaluation is incorporated in the evaluation of each program.

According to CAPES, Qualis is a tool for evaluating the programs' past publishing profile. As such, it focuses on the past publishing performance of the permanent academic staff linked to each program and should not be used for other proposes. In spite of that, Qualis became a strong policy instrument, guiding the editorial decisions of the Brazilian academic journals and the publishing decisions of academics and postgraduate students. It is also not unusual

³⁸ Qualis ranks journals in eight layers: A1, A2, B1, B2, B3, B4, B5 and C. The publishing profile of a program is one of the most relevant information for evaluation. In order to receive a high rate in the evaluation, the academic staff and students from a program must have most of their publishing activity in journals ranked A1, A2 and B1. Publishing in journals ranked lower than B2 are almost irrelevant for the sake of contributing for the Program's evaluation. For an overview of the impact of Qualis, see: Da Silva, Sergio. "Going Parochial in the Assessment of the Brazilian Economics Research Output" *Economics Bulletin* 29.4 (2009): 2826-2846.

³⁹ The decision of limiting the percentage of publications in the higher ranks counters some parochial tendencies favoring the publishing patterns of some traditional programs that were detected in the earlier editions of Qualis.

the use of Qualis to access the publishing performance of candidates to an academic position or for promotion decisions.

CAPES' graduate programs evaluation has many consequences: first, it accredits graduate programs. Second, all support for graduate education is strictly linked with evaluation. Even if HEI have policies for fund and help graduate education, the main source of support for this level of training comes from CAPES, in the form of scholarships and funds to cover for the programs' expenses. The number of scholarships and the amount of funds available for each program are dependent on the results of evaluation. Doctoral programs with higher ratings (6 and 7) have also access to a new special fund designed to back the Program' projects and policies for sustaining excellence⁴⁰.

For the private sector, graduate education is mainly relevant because it is a necessary condition for a HEI to be accredited as a university (or university center), and also counts to improve the institution's rating in SINAES. Preserving a small number of well-evaluated programs can be a crucial asset for aiming at improving their performance at SINAES.

4.6 External and internal institutional evaluations

Self-assessment

As mentioned above, SINAES pushed for the development of a whole new institutional branch inside all higher education institutions – the Commission of Evaluation – CPA - in charge of overseeing all procedures for internal evaluation. In all institutions, the CPA is responsible for collecting and organizing the data and filling the forms that should be sent to INEP, both for evaluation proposes and for the annual census of higher education, which is also organized by INEP. Providing these data require a dedicated staff, since the information goes down to each student (identified by his/her tax-number – the CPF) and each academic employed by the institution. It is also responsibility of the CPAs to engage the institution as a whole and the programs in the procedures for institutional and courses evaluation, which includes providing logistics for the occasional *in-situ* visits of experts organized by INEP. CPA is also in contact with the coordinators of undergraduate programs, since the formal plans for quality assurance and data are organized at the undergraduate program level.

⁴⁰ <http://www.capes.gov.br/bolsas/bolsas-no-pais/proex>

While the CPA is, in principle free to organize the evaluation and the quality assurance procedures inside the institution, it is also supposed to follow the procedures and adopt the parameters established by the evaluation procedures conducted by the Ministry of Education. According to the Technical Note 14/2014 issued by INEP's Directorate of Evaluation, internal and external procedures for quality assurance should consider ten dimensions: 1. Institutional mission and the Plan for Institutional Development (PDI); 2. Quality of institutional policies supporting teaching, research and outreach activities; 3. Institution's social responsibilities; 4. Communication an exchange with society; 5. Institutional policies for personnel development (both academic and non-academic staff); 6. Institutional management; 7. Infrastructure (includes Library); 8. Policies for planning and evaluation; 9. Policies for students' support (including accessibility and availability of support for teaching and learning in LIBRAS) and 10. Institutional' financial sustainability.

The procedures for internal assessment of master and doctoral programs are usually conducted by the Program Coordinator of each program in the institution. The coordinator is usually in charge of organizing the information and overseeing the filling the information required by CAPES through the Coleta-CAPES, and it is the coordinator who represents the Program before CAPES. At the end of an evaluation cycle, the area coordinators at CAPES provide each program with a detailed report evaluating its performance and identifying its main strengths and weaknesses. In the public sector, it is up to the program coordinators and the academic staff – usually formally organized into a council - to discuss the contents of report, decide if it is the case to appeal to CAPES' Superior Scientific Council for revising the Program's Score, or to accept the report and Score. The program coordinators are usually also in charge of devising strategies for the program for the next four years. Nevertheless, her/his success is crucially dependent to the degree of commitment of other academics linked to the program, and also to the degree of support among the students.

External evaluation

External evaluation is a step in the process of authorizing and/or recognizing new programs, renew the recognition of an undergraduate program, and for accrediting new institutions. The Program and HEI may be exempted from the external evaluation, considering its performance in the previous evaluation cycle. Except in the case of authorization of a new (private) institution, or a new program in a non-university institution, when the external

evaluation is mandatory, in all other situations visits and external evaluation tend to be reserved for programs and Institutions with lower rates. Since the conditions of employment and academic credentials of the academic personnel represents 30% of the CPC, usually programs in public institutions tend to be rated 3 or higher. Thus, external evaluation is an issue mostly faced by the institutions and programs in the private sector, and it is usually linked with a situation when the public authorities have concerns regarding the quality of the educational service that are being offered. This is probably why external evaluation have been converted into a “quasi-inspection” procedure in the Brazilian experience.

Given this particular nature of external evaluation, and considering the high stakes the entire process represents for the HEI, especially private HEI, the procedures and steps involved in organizing, conducting the visits and issuing the appraisal are highly formalized and controlled. From a legal perspective, nothing less than three different laws, four executive decrees, 43 ordinances, issued by the Ministry of Education and INEP, five normative resolutions issued by the National Council of Education (CNE), and four normative opinions also issued by the CNE regulate the way these visits are to be conducted, the expected behavior of the evaluators, what is to be observed and how the final review should be issued and interpreted in the processes of authorization and recognition of new programs, renewal of the recognition of established programs, authorization of new HEIs, upgrade of the type of institution, and renewal of the accreditation of a HEI.

The external evaluation starts when INEP nominates a team of evaluators that will be in charge of an external evaluation. The number of evaluators vary, considering the kind of evaluation to be conducted and the complexity of the object that will be evaluated. So, for program evaluations, the number of evaluators in the team may vary from two up to five members, and for institutional evaluation, the teams may vary from three to eight members. The names of the evaluators are randomly drawn from the SINAES’ Data Bank of Evaluators (BASis)⁴¹, and some consideration is given on the profile of these evaluators: the team is

⁴¹ The SINAES’ data-bank of evaluators (BASis) is composed by academics that answered periodical calls issued from INEP, applying for being accepted as evaluator. INEP pre-select academics considering his/her academic profile (holding a PhD and some academic production are necessary conditions). The academics selected are invited for participating in training seminar – which can extend from two to three days. The candidates finishing the training seminar have their name and profile included in the BASis.

expected to include academics from public and private institutions, from different regions and some diversity in the academic experiences. The evaluation team is formalized and registered at the E-MEC and the schedule of the visit is organized by INEP in consultation with the HEI' CPA.

The visit itself is preceded by an exchange of information between the Team and the CPA. The CPA should present documents related to the process and fill an on-line form which summarizes the relevant information, following the ten dimensions spelled above. Then the Evaluation Team analyses the documents and fills the On-line Preliminary Analysis Form, which is designed to direct the attention of the evaluators for the issues and dimensions that are considered central in the process of evaluation. In this Form, the team is oriented to pay attention to the *pedagogic project* of the program, the program's performance in previous evaluations, the academic profile and experience of the coordinator, conditions of contract and work of the academic and technical staffs, to compute the faculty qualification index (IQCD)⁴², and evaluates the data related to the kind of supports available for the students, the equipment for ensuring accessibility, disciplines offered in the Brazilian Language of Signals (LIBRAS), and other issues considered relevant.

The visit itself also follows a very strict schedule and protocol. It starts with a meeting between the HEI's high administration and the coordination of the program(s) and the team of evaluation, when the purposes of the evaluation are presented and discussed. Then the team has a formal meeting with the Program's Structuring Academic Core (NDE)⁴³, and a meeting with all the academics giving classes to the program. These meetings should be

⁴² The Faculty Qualification Index (IQCD) evaluates the academic profile of the academic staff. It varies from 1 to 5, it is 5 if all academics are PhD, and 1 none of the academics have any kind of postgraduate experience.

⁴³ The Structuring Academic Core (Núcleo Docente Estruturante –NDE) was firstly thought as an attribute of high quality programs: a core of academics interested in the program, and committed with its development and improvement. The CONAES Resolution N° 1, from June 17, 2010, formally recognized and regulated the presence, composition and roles of such core for all programs. According to this resolution, the NDE should be composed by academics with some leadership, with responsibilities for overview the implementation of the program's project, support the development of the program, supervise the integration among different disciplines, and ensure the integrity of the program's conformity to the National Curricula Parameters. Also, according with this resolution, the NDE should be composed by at least five academics teaching in the program, all of them with full-time or part-time contracts, at least 20% in full-time contracts, and 60% should hold a master's or doctorate.

followed by visits to the program's infra-structure – classes, laboratories, faculty rooms, facilities for disable students, and so on, a meeting with students, and a visit to the library, where the evaluative team should check the availability of the titles and journals declared by the HEI.

After the visit, the Evaluative team should present a detailed report to INEP, following the parameters established by the Institute. When the evaluation focus is the program, the following dimensions should be considered in the report: the quality and conformity of the didactic-pedagogic organization of the program; the academic qualification, conditions of work and contract of the academic and non-academic staffs; the quality conformity and conditions and accessibility of the program. When the focus of the evaluation is the institution as a whole, the report should consider the following dimensions: quality, permanence and efficiency of the processes of institutional planning and evaluation; the policies supporting the institutional development; the policies for academic development and support for the academic activities; management policies; and HEI infra-structure.

4.7 Distance and online education

Brazil is a latecomer to distance and online provision of education, especially at the tertiary level. Even today there are some enclaves of resistance chiefly inside the academic community at the public sector. Nevertheless, this modality of study grew in acceptance and legitimacy in the last decade, and the regulatory framework for distance education became more robust and systematic. One central element in the regulatory framework of online education links enrolment in online programs to the student's physical access to a local pole of support, where the she/he is supposed to perform regular weekly in-class activities under the supervision of a tutor. Therefore, most of the specific quality assessment of online education is related to evaluating the conditions of operation of these poles.

Distance education can only be offered by accredited HEIs. Only institutions that acknowledge this kind of education in its institutional design, with provision of support and infra-structure dedicated to activities linked to online education, can be authorized to deliver distance education. Bachelor and equivalent programs offered as online education are under the same quality assurance framework, which means that distance education students are supposed to attend ENADE, which produce similar quality indicators for distance education.

All distance education programs are authorized and recognized through external evaluation. The main focuses of the external evaluation for distance education are: 1. The quality of IT services and infra-structure; 2. The qualification of the technical team of support; 3. The academic qualification of the team in charge of designing the disciplines; 4. the infra-structure, library and facilities – which includes accessibility – of the local support poles that are designed to assist students enrolled in the Program. 5. The tutors' professional profile and academic qualifications. In this last dimension, the main issue is to assure a convergence between the tutor's field of training and the main subject of the online program.

In June of 2017 the Ministry of Education published a Normative Ordinance (Portaria Normativa Nº 11, de 20 de junho de 2017), creating new rules for distance education. With the new rules, institutions may require authorization for online only programs, without the obligation of offering the same program in the traditional classroom mode. The new regulation also exempts specific authorizations – with external evaluation – for each local pole of support. The number of poles of support the institution is now allowed to organize is linked to the Institutional Rating achieved by the HEI in the last evaluation⁴⁴. Institutions with IC 3 are allowed to organize up to 50 local Poles; institutions with IC 4 are allowed to organize up to 150 local poles, and institutions with IC 5 are allowed to have up to 250 poles. At the moment of the external evaluation leading to the legal recognition of the online program, the HEI should provide enough elements allowing the evaluating team to access the quality of the poles, considering the profile of the staff and its infrastructure (including for the first time the digital library collection). While the new rules authorize new poles without previous external evaluation, the new ordinance also establish that SERES is entitled to ask INEP to organize monitoring visits which may leads to a “process of supervision”, that could end in cancelling the program recognition.

⁴⁴ The number of local poles an institution is authorized to establish is relevant because even in on-line education, the institution can only accept enrollments of students living inside the geographic area covered by the local support pole.

4.8 Technical note: the computation of indicators used in SINAIS⁴⁵

The two main indicators developed under SINAES are the “Conceito Preliminar de Curso - CPC⁴⁶” and the “Índice Geral de Cursos - IGC⁴⁷”. The first one, CPC, is attributed to a single undergraduate program in a given subject/field, the second one, IGC, is an average of all programs that the HEI offers, including graduate programs, which follow a separate evaluation system, developed by CAPES.

Each undergraduate program is evaluated every 3 years, following the same cycle as the test that assesses seniors’ learning outcomes (ENADE), with programs grouped by field/area in three large groups. Once a 3-year cycle is completed, INEP computes, using the CPCs and the CAPES scores for graduate programs, and information about enrollment numbers in programs, the IGC for each HEI. Below one finds how the CPC and IGC are computed, in detail.

How the CPC is computed

The CPC is a score which may assume integer values between 1 and 5, 1 being considered the lowest and 5 the highest possible scores. It is an aggregate score that is computed from information regarding four dimensions, as follows:

- I. student learning outcomes performance;
- II. value-added by program regarding learning outcomes;
- III. teaching staff (faculty/instructors);
- IV. curriculum, program structure, infrastructure and other aspects related to how program is offered.

The following indicators are used in the computation of the CPC for each program (number inside parenthesis refers to the dimension above, related to the indicator):

- a) the scores of seniors in the ENADE (I);
- b) an estimate of the value-added by the program to the learning outcomes of seniors (II). It obtained by computing the difference between the actual performance of seniors in the ENADE and its expected value, to be detailed below.

⁴⁵ We follow the Technical Notes N. 38/2017 and N. 39/2017 (both under Process N. 23036.004395/2017, 14th/June/2017), developed by the Directorate of HE Evaluation (DAES), INEP.

⁴⁶ Preliminary Program Score. We will use its acronym in Portuguese, CPC, throughout this section.

⁴⁷ General Programs Score (or Index). Its Portuguese acronym, IGC, will be employed in this section.

- c) number and proportion of teaching staff with a Master's degree (III);
- d) number and proportion of teaching staff with a Doctorate degree (III);
- e) numbers and proportions of teaching staff in full-time and in part-time employment (IV);
- f) average of items in the Student Survey regarding curriculum and program structure (IV);
- g) average of items in the Student Survey regarding infrastructure and physical installations used by program (IV);
- h) average of items in the Student Survey regarding opportunities for expanding academic and professional experience (IV).

For a program to have its CPC computed, it must have had at least 2 (two) seniors taking the ENADE test.

Each component has a raw score which is normalized into a continuous 0-5 score via a z-score normalization using a traditional average and standard deviation (SD) model, where the population considered is programs within a given subject/field, which are designated as the *area* of the programs. For one of the components a)-h) listed above, say component X, one takes the raw scores X_{ck} of all programs $c = 1, \dots, T$ in area k and computes *average* $\bar{X}_k$ and *standard deviation* S_{X_k} for programs in the area k using formulae (1) and (2):

$$\bar{X}_k = \frac{\sum_{c=1}^T X_{ck}}{T} \quad (1) \quad S_{X_k} = \sqrt{\frac{\sum_{c=1}^T (X_{ck} - \bar{X}_k)^2}{T-1}} \quad (2)$$

Next, the z-score, which is the deviation from the mean in terms of numbers of SD, for each program c in component X, is computed in the usual way:

$$Z_{Xc} = \frac{X_{ck} - \bar{X}_k}{S_{X_k}} \quad (3)$$

Z-score is a real number which can be negative, zero or positive, and usually belongs in the $[-3, +3]$ interval. Finally, the z-scores of programs for that component are linearly transformed into a 0-5 scale, using the minimum and maximum values for the z-scores of all programs in the given area, via the following formula:

$$NP_{X_c} = 5 \cdot \left(\frac{Z_{X_c} - Z_{X_k} \min}{Z_{X_k} \max - Z_{X_k} \min} \right) \quad (4)$$

Thus, the minimum z-score will become 0 and the top one, 5, in the new scale, and all others distributed in-between linearly. NP_{X_c} is called the standardized score of undergraduate program c in the component X . One must recall that all these computations are performed within the family of programs in a given area, like Physics, Social Sciences, Law, Electrical Engineering, etc.

We briefly describe how the raw scores for each indicator is computed.

- a) The raw score of students' learning outcomes for a program is given by the average of the ENADE scores of seniors enrolled in that program who took the test.
- b) The raw score of the value-added to students' learning outcomes for a program is provided by the standardized score of the value-added indicator IDD for the program. It is computed using a linear regression for the expected ENADE score of seniors, taking as control variables the students' scores in the secondary education test taken before they started college. Once the expected score for the student is computed, the difference between the actual score and the expected score is the raw IDD for the student, which is then used to compute the average IDD for a given program in a given area. The details are included in the Appendix to this section.
- c) The score related to the proportion of teaching staff in the program with a Master's degree is just the quotient between the number of teaching staff with at least a Master's degree over the total teaching staff, for program c :

$$PM_c = \frac{M_c}{T_c} \quad (5)$$

- d) Analogously for the proportion of teaching staff with a doctorate degree for program c :

$$PD_c = \frac{D_c}{T_c} \quad (6)$$

- e) The score for employment status, fulltime or partial time, is given by the proportion of teaching staff employed in each system over total number of those in teaching positions for program c:

$$PR_c = \frac{R_c}{T_c} \quad (7)$$

Where R_c , in this case, is be the number of people with either fulltime or partial time employment status.

- f) The score obtained from the Student Survey regarding academic aspects of programs, like curriculum and pedagogical structures, is obtained by averaging how students score, in the survey, those aspects. Each item in the survey is scored in a Likert scale from 1 (*Totally disagree*) to 6 (*Totally agree*), with options for *do not know* (7) and *Does not apply* (8). These two last options are disregarded for score computation.
- g) The score obtained from the Student Survey regarding infrastructure and similar aspects is computed as in f).
- h) The score obtained from the Student Survey regarding opportunities for expanding academic and professional experience is computed as in f).

One remark about the last three scores, those computed using the Student Survey, which students respond when they take ENADE: the items used for each of the three indicators are determined *a posteriori*, using a principal components model.

Once all these scores are computed and standardized to the 0-5 continuous scale as described above, the final continuous score ($NCPC_c$) is obtained using the weights in the table below.

Weights of components used in computation of continuous score		
Dimension	Component	Weight
I. Student performance in ENADE	Seniors' score in ENADE	20.0%
II. Value-added to student performance in ENADE	Differential score (actual minus expected) in ENADE	35.0%
III. Teaching staff	Score of proportion of teaching staff with a Master's degree	7.5%
	Score of proportion of teaching staff with a doctorate degree	15.0%
	Score of proportion of employment status of teaching staff	7.5%
IV. Student's perception of program (Student Survey)	Score related to academic aspects	7.5%
	Score related to infrastructure	5.0%
	Score related to further opportunities	2.5%

Table 4.1

Once the aggregate continuous score ($NCPC_c$) is computed, it is rounded-off to integers using the following table, to produce the CPC for the program:

Round-off table	
CPC	Continuous score ($NCPC_c$)
1	$0.0 \leq NCPC_c < 0.945$
2	$0.945 \leq NCPC_c < 1.945$
3	$1.945 \leq NCPC_c < 2.945$
4	$2.945 \leq NCPC_c < 3.945$
5	$3.945 \leq NCPC_c \leq 5.0$

Table 4.2

How IGC is computed

The IGC is computed every 3 years for each HEI, following the CPC/ENADE cycle. The latest cycle involved years 2014-15-16. Basically, the IGC is computed using an average of scores of all programs, undergraduate and graduate, that the HEI offered during the period in the cycle, weighted by the number of enrolled students. The following information is employed in the computation:

- The continuous CPC ($NCPC_c$) for undergraduate programs, as computed using Table 4.1 above.

- b) Number of students enrolled in undergraduate programs in the year their CPC is computed (including those who graduated in the reference year).
- c) The CAPES scores of the graduate programs offered by the HEI, with results updated to the last day of last year of cycle (31/12/2016 for the last cycle).
- d) Number of students enrolled in graduate programs in the last year of cycle (including those that got their degrees that year).

For an HEI to have its IGC computed, it needs to have at least one undergraduate program evaluated in the cycle, with CPC computed (see above the condition for that).

For HEIs with no graduate programs having a CAPES score, the IGC is the average of the CPC of programs, weighted by the number of students enrolled in the reference year.

Scores used for IGC (IES is Portuguese acronym for HEI):

- a) G_{IES} : weighted average of the continuous CPC of all undergraduate programs offered by the institution, with number of students enrolled (in the same year at which the CPC was computed) as weights.
- b) M_{IES} : weighted average of the CAPES scores all Master's programs of the HEI, with number of students enrolled (last year of cycle) as weights. As the CAPES scores follow a different scale, the following table of conversion is used, before computing the program's score.

Conversion table for Master's and Doctorate programs scores	
Capes Master's/Doctorate score	Converted score
3	4
4	4.5
5	5
6	5
7	5

Table 4.3

- c) D_{IES} : computed in an analogous way as in the case of computation of the Master's programs score in b), using same conversion table (Table 4.3).

The continuous IGC of the HEI is a weighted average of the three scores computed above, using as weights the number of students enrolled at the three levels, but with an extra step where the number of students enrolled in graduate programs is converted using a correspondence to undergraduate enrollment, which depends on the Capes score of the program, and if it is at Master's or Doctorate levels, as presented in the table below:

Conversion table for enrollment between graduate and undergraduate programs.		
Capes score	Conversion for Master's programs	Conversion for Doctorate programs
3	1	1
4	2	2
5	3	3
6	3	4
7	3	5

Table 4.4

The table is used as follows: each student enrolled in a Master's or Doctorate program with Capes' score S will count as N undergraduate students, where N is the number on line S above and the corresponding column. The number of equivalent students enrolled in the graduate program is, therefore, the number of students enrolled in that program multiplied by the conversion factor given in Table 4.4.

Using that, one generates weight coefficients α, β, γ given by:

$$\alpha = \frac{T_G}{T_G + T_M + T_D}$$

$$\beta = \frac{T_M}{T_G + T_M + T_D}$$

$$\gamma = \frac{T_D}{T_G + T_M + T_D}$$

where T_G is number of enrolled students in undergraduate programs at the HEI, T_M , in Master's programs and T_D , in doctorate programs (in the last two cases, computed after the conversion established in Table 4 is applied, for each graduate program).

The continuous IGC of the HEI is computed using these coefficients as weights:

$$IGC_{IES} = \alpha \cdot G_{IES} + \beta \cdot M_{IES} + \gamma \cdot D_{IES}$$

where G_{IES} , M_{IES} and D_{IES} are the undergraduate, Master's and doctorate scores as computed above. Using again the round-off Table 4.2, one concludes the computation of the integer-valued IGC for the HEI.

The value-added score (IDD)

The computation of undergraduate programs' CPS employs, with maximum weight 35%, as seen above, a score which is proposed as an estimate of the educational value-added due to their college education, the "Indicador de Diferença entre os Desempenhos Observado e Esperado - IDD⁴⁸". It is measured by comparing the actual performance of students in the learning outcomes assessment test (ENADE) and an estimate of their expected performance. The latter is estimated via a regression for the ENADE score where the control variables are the scores of the student in the "Exame Nacional do Ensino Médio - ENEM", which is developed by INEP/MEC, the same organ that develops ENADE.

ENEM is a 2-day test, with 4 sections of 45 multiple choice items and one essay. The 4 sections are dedicated to the major subject areas developed in secondary education in Brazil: Languages (L), Mathematics (M), Social sciences and humanities (S) and Natural sciences (N). The essay is a tradition school-type composition. The regression only uses the scores of the four subject area tests, separately as control variables.

⁴⁸ The title of the indicator translates as "Indicator of the Difference between the Observed and Expected Performances". We follow, in this appendix, the "Nota Técnica n. 33/2017/CGCQES/DAES, INEMP/MEC", of June/2017.

For some programs and institutions, it is possible that there were seniors taking ENADE but who had not taken ENEM before they started their college programs. For a student to have his/her scores used in the IDD regression, he/she should have taken ENEM in the year of admission or in the previous three years. Only seniors taking ENADE and fulfilling that condition would be part of the population considered for the IDD regression.

For a program to have its IDD computed, it is required that:

- a) there are at least 2 (two) students with valid ENADE and ENEM scores (as above);
- b) to have at least 20% of the seniors taking ENADE with valid ENEM scores (as above).

The IDD regression is a multiple linear regression for the ENADE scores using as control variables, assuming as a model that the actual performance of the student in ENADE (given by C) is just a sum of two components, his/her educational situation at admission (I) plus the effect of the program that he/she followed in college (Q), plus an error factor with the usual expected value of zero:

$$C = I + Q + \varepsilon$$

Using the four scores of the components of ENEM, and considering the programs grouped by the subject area employed in the development of ENADE, the regression was developed to get the estimate, for each student, of his/her expected ENADE score. The intercept is computed for each program, using a random coefficients model. The coefficients for the ENEM components scores follow a fixed effects coefficients model.

Recalling that the ENADE has a general education and a subject area component, in all above one uses the 25%/75% weighing for them, respectively.

The difference between the actual score and the expected score is the raw IDD for the student. An average of those scores for the students in the program gives the program's raw IDD. Once that is computed, for each subject area considered, one performs a standard average/standard deviation normalization of the scores, generating a z-score as before, which is just the distance, in standard deviations, to the mean of IDD for the group of programs in the given subject area (see equations 1-4 in the text). That raw score is then rescaled to the continuous 0-5 scale, and then rounded-off as in Table 4.2 of the text, giving the IDD for the program used in the computation of its CPC.

Chapter 5 – General Comments and Conclusions

The evaluation of higher education in Brazil, since its early inception with the assessment of post-graduate education by CAPES and later by the assessment of undergraduate education in the 1990s, followed by SINAES legislation, allowed for the development of a valuable culture of external and internal assessment of higher education both in government agencies and among the higher education institutions. To implement these assessments, both CAPES and INEP developed very sophisticated systems of data gathering and a tradition of informing society about the quality of the country's higher education course programs and institutions which became indispensable for the state, to implement its education policies; for the institutions and their programs, to see how they compare with others; and for the public as a whole, which can make use of the information to make decisions about their educational choices in higher education.

As these systems of quality assessment developed, however, several issues have been raised about their implicit assumptions and effectiveness, which need to be addressed to make the assessments better and more useful for the different stakeholders. In the following, we present a list of issues that have often been raised by different stakeholders and observers regarding the assessment of undergraduate programs, and which need to be addressed.

5.1 Known issues

The overlap between regulation and quality assessment. These two dimensions cannot be fully separated, since it is the responsibility of the Ministry of Education to assure that the higher education institutions and programs meet minimum standards of quality in order to be legally authorized to function. Quality assessment, however, should go beyond the minimum, be formative, and provide both the institutions and the different stakeholders with information not only about the levels of quality in a single scale, but also about the strong and weak aspects of institutions and programs. The original understanding of SINAES was that to give more emphasis to formative, quality evaluation, with strong participation of the institutions themselves in this process. Currently, however, it can be argued that the main emphasis is in the process of regulation, as implemented by SERES, which became so detailed and complex that does not allow for the more qualitative and formative assessment to

prevail. One might also add that, for the purpose of regulation (authorization of programs and institutional accreditation), many of the more complex aspects of the quality evaluation/assessment process in place are not needed, if regulation is based on minimum requirements only.

The bias in favor of public institutions. It is the role of SINAES to assess both the federal and the private higher education institutions. However, public institutions established by legislation do not need ministerial authorization to function, and universities do not depend on the Ministry of Education for the creation of new course programs. Therefore, most of the work of SERES is aimed at the regulation of private institutions, and particularly those that do not have university status. The Brazilian Constitution, establishing that universities have a special legal status, as the only model referenced among HEIs, already, at least implicitly, implies that all higher education institutions should be organized on the Humboldtian university model of integration of teaching and research, with highly qualified academic staff with full-time contracts. But the legislation (the National Education Law - LDB) also recognizes that many higher education institutions, organized as University Centers of isolated schools, or the smaller institutes and faculties, are teaching-only institutions. The same may be said of the technological colleges, which have a vocational/professional emphasis in their academic structure. However, several of the indicators used in the assessments have to do with characteristics of research universities, like all the teaching staff indicators (see the Technical Note on how the CPC is computed), which do not apply or are not equally relevant for a (mostly) teaching institution. The consequence is that public institutions usually come out better in the rankings produced by the Ministry of Education. Even among private HEIs, those with a research outlook, as the Catholic universities, will tend to get better CPC scores, even if, as an undergraduate institution, they may not be actually doing a better job than a teaching-only institution.

Still, the better showing of public institutions in the CPC or IGC scores is not necessarily an artifact of the indicators' methodologies, since public institutions tend to have better conditions to hire good quality professors and to recruit better qualified students. However, since the *in-situ* assessments are performed only in the institutions with 1 or 2 in the 5-point score scale, public institutions are in general exempt from external assessments, and are not

required to go through the laborious work of meeting SERES' detailed requests for information.

Issues related to ENADE.

ENADE, the National Exam for Student achievement, was an important innovation introduced in Brazil in the 1990s and continued with some modifications since then. It provides a ranking of the course programs in a 5-point scale within each professional or academic discipline, which is broadly accepted as valid. There are some issues with ENADE, however, which have been pointed out, and deserve consideration.

The first issue is that ENADE does not have minimum standards of quality for each course programs, nor an interpretation scale relating curriculum aspects to the students' performance scale. The results are simply normalized and distributed in a five-point scale, which allows the government to tell which are the best and the worse course programs, but not whether the programs are good enough. The lack of an interpreted scale (which would be needed for equalizing results of different editions of the test) also makes it impossible to see if a program is actually improving or getting worse in preparing students, between ENADE editions.

The second issue is that ENADE is a high-stakes test for the institutions, since it affects its accreditation and public image, but is a low-stakes test for the students, who are not affected by the results of their individual test. In many situations, the students may decide not to respond to the test as well as they could, making the results of the test less reliable. In some cases, it may be easy to detect if students have simply decided to boycott the test, which has happened in some areas or institutions, but in others, a relatively weak result by students may be just the consequence of a general lack of commitment on their part. On the other hand, some private institutions have been stimulating student participation by offering prizes, even monetary ones, to those that perform better, another possible source of distortion in the overall scoring.

A third issue is the academic bias of the test. The tests of ENADE are prepared by university professors who tend to assume that there is only one curriculum for their disciplines and disregard the fact that different programs in the same broad field can have different standards and goals, depending among other things on the characteristic of the students they

receive. This bias adds to the more general bias of SINAIS in favor of public institutions, and against more vocational programs.

There are other, more technical and administrative issues with ENADE which deserves scrutiny. There are about one hundred different ENADE tests, prepared by teams with participants from different parts of the country that have to travel to meet, sometimes covering similar fields, such as computer engineering and information systems. Despite the ever-growing number of different tests to cover all fields and subject areas, the model certainly is reaching, or may have already reached, a limit in terms of being able to keep expanding as more and more fields and subjects are covered by innovative undergraduate programs, especially in the vocational education sector.

Another administrative aspect that limits the improvement of ENADE is that, by time and costs constraints, the repository of items used in ENADE editions is not large enough, and do not follow a systematic structure related to curriculum components and level of difficulty, as would be required for them to be used according to an assessment model that would allow for equalization between editions of the test, like, for example, an Item Response Theory modeling, as used for PISA, internationally, and for other learning outcomes assessment systems in Brazil itself (SAEB, Prova Brasil).

Issues related to IGC and CGC.

The mathematical calculations to combine the different indicators into the provisional concept of courses for programs (IGC) and General Index of Courses of institutions are difficult to understand and include several arbitrary decisions about weights and standardization procedures that makes it very difficult to properly interpret their meaning. The final rankings, in five-point scales, are deceptively easy to interpret, but in fact are not related to clear underlying references or standards and are not useful except for the very broad classification used by SERES to identify the less qualified course programs to be subject to in site inspection.

Finally, all these scores have in common a strong bias towards a more traditional scholarly and academically-centered learning. Programs with hybrid designs, focused on mastering skills and vocational training, are systematically pushed to an unnecessary scholarly approach because of the weight of these indicators. Programs with this profile have been growing in the private sector. In 2016 the Brazilian census of higher education registered almost 300

thousand enrollments in programs with this profile in the private sector. The pressures posed by the emphasis in these indicators may stifle innovation and create unnecessary burdens to new developments in curricula and learning paths in Brazilian higher education.

The impact of SINAES

SINAES has had some impact in ensuring minimum standards in Brazilian higher education, in the sense that private institutions that get systematically low Scores in the assessment may lose their authorization to work. For instance, in 2012, SERES identified 491 programs with 1 and 2 in CPC, of which 270 were forbidden to accept new students, with some of them having to sign an agreement to present a plan to improve its quality.⁴⁹ This should be compared with more than 30 thousand course programs in the country that participates in ENADE once every three years, and receive only a standardized report of the results of their students in the test and their opinions in the student questionnaire. This information may be useful for the institution for its improvement, but there is no information about how this feedback is actually utilized. So, it may be fair to say that SINAES has some impact on courses at the extreme bottom of the quality assessment system, but not much on the higher education system as a whole.

For the students entering higher education, the institution and program rankings can provide some information about their quality, and indeed this information is often used for marketing purposes in the private sector. But the students do not get other, more specific information such as the orientation of the programs, the employability of their graduates, the rates of promotion, and so on. This information may or may not be provided by the institutions themselves in their public information systems, but not from SINAES itself.

The assessment of postgraduate education by CAPES

CAPES, besides its role as the main funding agency for postgraduate education, has developed also an assessment model for graduate programs which enjoys good reputation among the Brazilian academic and scientific community. The agency plays a central role in the support and quality assurance of Brazil's postgraduate education, which is by far the largest in the Latin American region. The assessment of graduate education, initiated in the mid 1970s, has

⁴⁹ Data from MEC/SERES, Relatório de Gestão do Exercício de 2013.

developed into a fairly complex and unique system, characterized by strong participation of representatives of the scientific community and the regular use of peer reviews.

At the same time, there are some aspects of CAPES that deserve some scrutiny. The first is its strong academic and disciplinary orientation, in a time when the frontiers between basic, applied and innovation research tend to be blurred, as well as the frontiers between the traditional academic disciplines. This academic bias is explained by the fact that the original mission of CAPES was to strengthen the graduate programs in higher education institutions, most of which did not have strong traditions of high quality academic standards. This academic bias appears in the emphasis given by CAPES on traditional indicators of scientific productivity, international publications and citations, as well as the production of doctoral dissertations, with little weight given to applied results, links with the productive sector and social and economic impact; and the organization of the assessment of graduate programs in 49 areas leaves little space for interdisciplinary, non-traditional and innovative work.

Another issue with the assessment of CAPES is related to one of its virtues, which is the reliance on peer review and the selection of reviewers in the country's graduate programs. There is a natural tendency for reviewers to overvalue their own lines of work and their institutions or that of their associates, and to resist innovation. In the past, CAPES identified a tendency of grade inflation in their assessments and dealt with the problem by implementing more strict standards and the use of more quantitative indicators, such as those of Qualis, its ranking of scientific journals. This problem is probably less important in more consolidated scientific fields in the natural sciences, and more important in less consolidated areas in the social sciences, humanities and applied fields, to which the traditional bibliometric indicators of scientific productivity do not fully apply.

[The role of the Ministry of Education in education assessment](#)

A final consideration is the role of the Ministry of Education as the central actor in the assessment of higher education in the country. On one hand, the Ministry has the legal mandate to implement the minimum standards of quality and to help the higher education system to improve. On the other, the double role of the Ministry as the owner of the federal system and supervisor of the private sector raises issues of possible conflict of interest, which may explain why the public institutions are in practice not affected by the evaluations, and

the private sector regularly complains about excessive regulation and rigidity of the ministerial supervision. From the standpoint of the society as a whole, there is an argument for more decentralized and independent assessment systems, which would be more formative and equally relevant for different institutions, regardless of their ownership and legal status.

Last but not least, there is a general feeling that the assessment of higher education in Brazil became too large, too complex and too expensive, and is not yielding the expected results in terms of effective quality assurance and useful information for society. Assessments are, ultimately, subjective judgements made by persons who have the competence and legitimate authority to issue them. These judgements cannot be arbitrary, need to follow explicit criteria and be based on appropriate evidence; but it is illusory to expect that these subjective judgements could be fully replaced by formal procedures, systematic data collection and mathematical computations, which are all based on previous subjective decisions about what procedures should be followed, what data should be collected, and how these data should be transformed in indicators.

In the balance between subjective judgments and supposedly objective indicators, the Brazilian assessment systems for higher education may have moved too much to the latter. There is a continuous production of norms, regulations and demands of information that sometimes compels the institutions to spend resources they could use for other purposes, and sometimes hire consultants to interpret and fill the forms requested by the government, and a large amount of information collected by the government in these assessments, except for the statistics that are publicized, remain buried in the public archives. One negative consequence is institutes often respond bureaucratically to the requirements in the legislation, creating a few graduate course programs to get university center status, or hiring consultants to fill in the necessary forms of self-evaluation, or selecting students and coaching them to get high scores in the test. Another consequence is that the profusion of detailed and centralized requirements stifles autonomy and institutional differentiation.

It may be possible to devise an assessment system which is less complicated, less intrusive, less expensive, more decentralized, and that produces more relevant information for the institutions, the government and society, making better use of the capabilities provided by the information revolution of the last several years. The simpler system should also be able

to better cope with the fast pace of change and innovation occurring in HE, in terms of modes of instruction (in class/distance learning/hybrid), of new fields and subjects and of new institutional arrangements.

Acronyms

ANDIFES – Associação Nacional de Dirigentes das Instituições Federais de Ensino Superior

ANPG – Associação Nacional de Pós-Graduandos

BASis – Banco de Avaliadores do SINAES

CAPES – Coordenação de Aperfeiçoamento de Pessoal de Nível Superior

CC – Conceito de Cursos da Instituição

CGC – Conceito Preliminar de Cursos da Instituição

CNE – Conselho Nacional de Educação

CNPq – Conselho Nacional de Desenvolvimento Científico e Tecnológico

CONAES – Conselho Nacional de Avaliação da Educação Superior

CONSED – Conselho Nacional de Secretários de Estado de Educação

CPA - Comissão Própria de Avaliação

CPF – Cadastro de Pessoa Física

E-MEC - Sistema eletrônico de acompanhamento dos processos que regulam a educação superior

ENADE – Exame Nacional de Avaliação do Desempenho dos Estudantes

ENC – Exame Nacional de Cursos (“Provão”).

ENEM – Exame Nacional do Ensino Médio

FAPESP – Fundação de Amparo à Pesquisa de São Paulo

FASUBRA – Federação de Sindicatos de Trabalhadores Técnico-Administrativos em Instituições Públicas de Ensino Superior no Brasil

FIES - Fundo de Financiamento Estudantil

FNDCT – Fundo Nacional de Desenvolvimento Científico e Tecnológico

FOPROF – Forum Nacional de Pró-Reitores de Pesquisa e Pós-Graduação

HEI – Higher Education Institution

IBGE – Instituto Brasileiro de Geografia e Estatística

IC – Índice Institucional

IDD - Indicador de Diferença entre os Desempenhos Observado e Esperado

IGC – Índice Geral de Cursos Avaliados da Instituição

INEP – Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira

IQCD – Índice de Avaliação do Corpo Docente

LIBRAS – Língua Brasileira de Sinais

MEC – Ministério da Educação

NDE – Núcleo Docente Estruturante

PDI – Plano de Desenvolvimento Institucional

PNE – Plano Nacional de Educação

PNPG – Plano Nacional de Pós-Graduação

PROUNI – Programa Educação Para Todos

QUALIS – Sistema Brasileiro de Avaliação de Periódicos

REUNI – Programa de Apoio a Planos de Reestruturação e Expansão das Universidades Federais

SAE – Secretaria de Assuntos Estratégicos

SAEB – Sistema de Avaliação da Educação Básica

SERES – Secretaria de Regulação e Supervisão da Educação Superior

SESU – Secretaria de Educação Superior, Ministério da Educação (extinct)

SINAES – Sistema Nacional de Avaliação da Educação Superior

SISU – Sistema Unificado de Seleção Universitária

UNDIME – União Nacional de Dirigentes Municipais de Educação

UNE – União Nacional de Estudantes

List of Documents in the Annex

	1988 Constitution Brazil.pdf
	1996 Lei de Diretrizes e Base da Educação.pdf
	2004 Lei Sinaes 2004.pdf
	2005 MEC termo de compromisso_docente_avaliador.pdf
	2012 MEC Projeto INSAES.pdf
	2014 SERES Relatorio_gestao_seres_2013.pdf
	2016 INEP ENADE example institution report.pdf
	2016 INEP ENADE example program report.pdf
	2017 CAPES Portaria-59 Assessment sytem.pdf
	2017 CAPES Program of Excellence - PROEX.pdf
	2017 Decreto 9005 reorganizes the Ministry of Education.pdf
	2017 Decreto 9235 defines de rules for regulation and evaluation of higher education.pdf
	2017 INEP nota_tecnica_n38_2017_cgqes_daes_calculo_cpc.pdf
	2017 INEP nota_tecnica_n39_2017_cgqes_daes_calculo_igc.pdf
	2017 INEP Student questionnaire Passo a Passo.pdf
	2017 INEP Technical note new instruments for external evaluation.pdf
	2017 MEC Portaria 23-2017-workflow in the accreditation process.pdf
	2017 MEC Portaria 1383-2017 MEC - Summary in...rs for assessment of institutions and courses.doc
	2017 MEC Portaria accreditation of distance education.pdf
	2017 MEC Portaria que define a competencia do...P na avaliação de IES e cursos de graduação.doc
	2017 SINAES instrument for recognition and renewal of recognition.pdf
	2017 SINAES_Instrument for authorization of courses.pdf
	Brazilian studies on ENADE.pdf